F 207 ^{9}

A

COMPLEAT SYSTEM

OF THE

BLOOD-VESSELS

AND

NERVES,

TAKEN FROM

ALBINUS's Edition of EUSTACHIUS,

ALSO FROM

Ruyſch, Vieuſſens, Du Verney, Haller, Trew,
and J. B. Surgeon at Avignon;

Beautifully Engraved on Large COPPER PLATES,

With TABLES of EXPLANATION,

Containing the Text of EUSTACHIUS, ALBINUS, &c.

TRANSLATED INTO ENGLISH.

TO WHICH ARE PREFIXED

THREE WHOLE-LENGTH ANATOMICAL FIGURES,

REPRESENTING

The External Parts of the HUMAN BODY in both SEXES.

N. Blakey inv. & del.

G. Scotin Sculp.

LONDON:
PRINTED FOR JOHN KNAPTON. MDCCLVIII.

46005(2).

WELLCOME
LIBRARY
INSTITUTE

THREE WHOLE LENGTH
ANATOMICAL FIGURES,
REPRESENTING THE
FORE VIEW OF A MAN,
AND
TWO DIFFERENT VIEWS OF A WOMAN;
Taken from *BIDLOO*'s ANATOMY.
And Enlarged to the ſame Size as *ALBINUS*'s ANATOMICAL FIGURES of the BONES and MUSCLES.

TABLE I.

This table, which is taken from Bidloo, repreſents the fore view of the body of a man; where we may obſerve in general, comparing it with the next, which repreſents that of a woman, that beſides the features being ſtronger or more maſculine in this than in the other, the neck is not ſo round, the ſhoulders are broader, the cheſt is likewiſe more broad and prominent, the belly more compreſſed, the haunches narrower, and the limbs more brawny and muſcular, though not ſo round, nor altogether ſo thick.

A The head, divided into the hairy ſcalp; and the face 2.
B The forehead.
C The eye-brow.
D The eye.
E The ear.
F The cheek.
G The noſe.
H The upper lip.
I The under lip.
K The chin.
L The pomum adami, or protuberant part of the larynx; which in men is much more conſpicuous than in women.
M The ſternum, or breaſt-bone.
N N The mammæ, or breaſts.
O The ſcrobiculus cordis, or pit of the ſtomach.
P The epigaſtrium.
Q Q The hypochondria.
R The umbilical region, in the middle of which is the naval.
S The hypogaſtric region.
T T The ilia.
U The pubes.
V V The inguina, or groins.
W The penis.
X The ſcrotum.
Y Y The thighs.
Z Z The knees.
α α The legs.
β β The tarſus or bending of the foot.
γ γ The metatarſus.
δ δ The toes.
ε ε The ſhoulders.
ζ ζ The arms.
η η On the right ſide the olecranon; on the left, the bending of the fore-arm.
θ θ The fore-arms.
ι ι The carpus, or wriſt.
κ κ The metacarpus.
λ λ The fingers.

TABLE II.

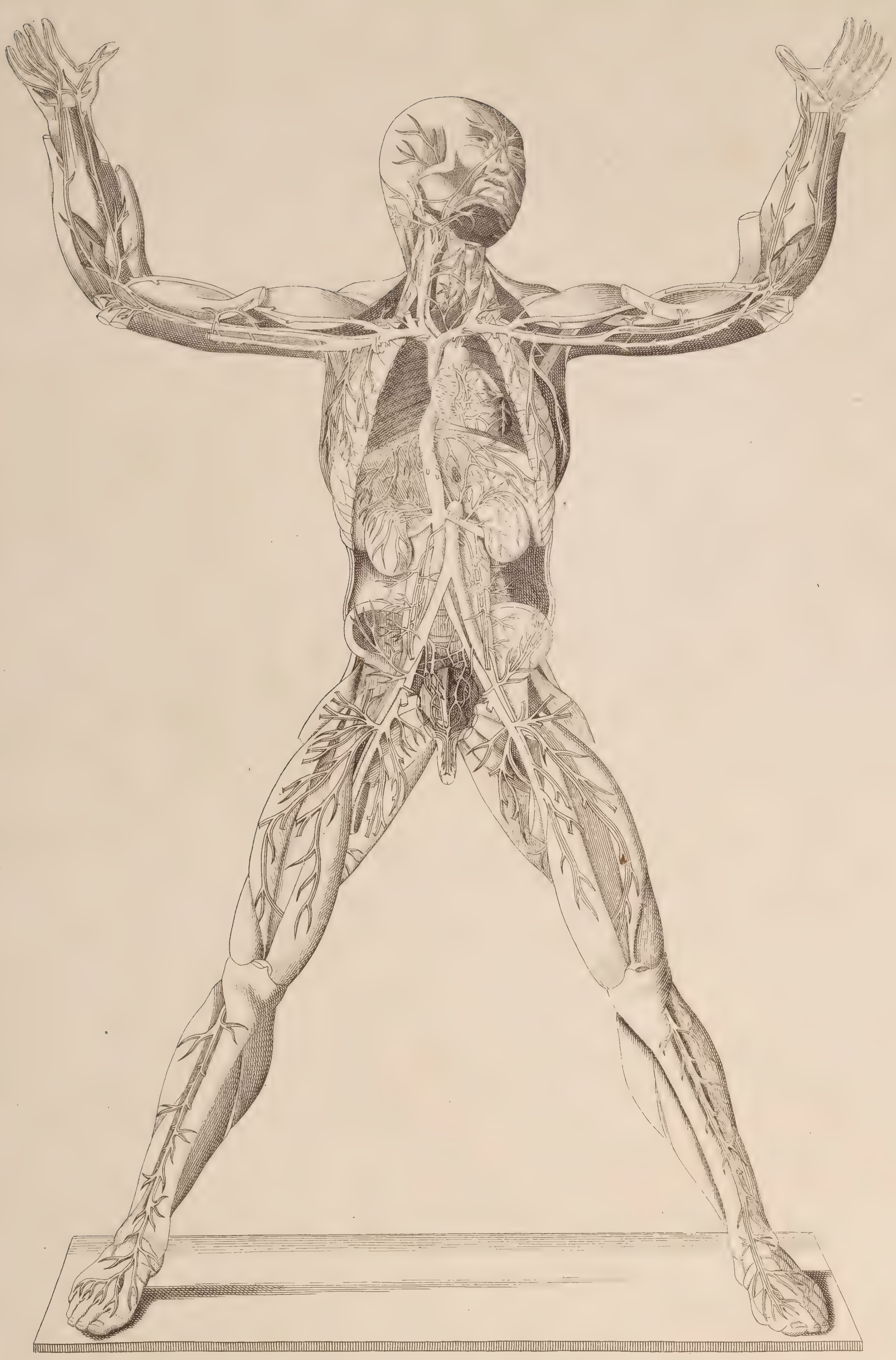
This table is likewiſe taken from Bidloo, and repreſents the fore view of the body of a woman; where the features are ſofter, the neck more round and ſmooth, the pomum adami leſs protuberant, the ſhoulders narrower, the cheſt likewiſe narrower and more compreſſed, the belly more prominent, the haunches a great deal broader, the thighs more thick and rounded, the arms, hands, legs and feet, more delicate and plump, and not ſo large.

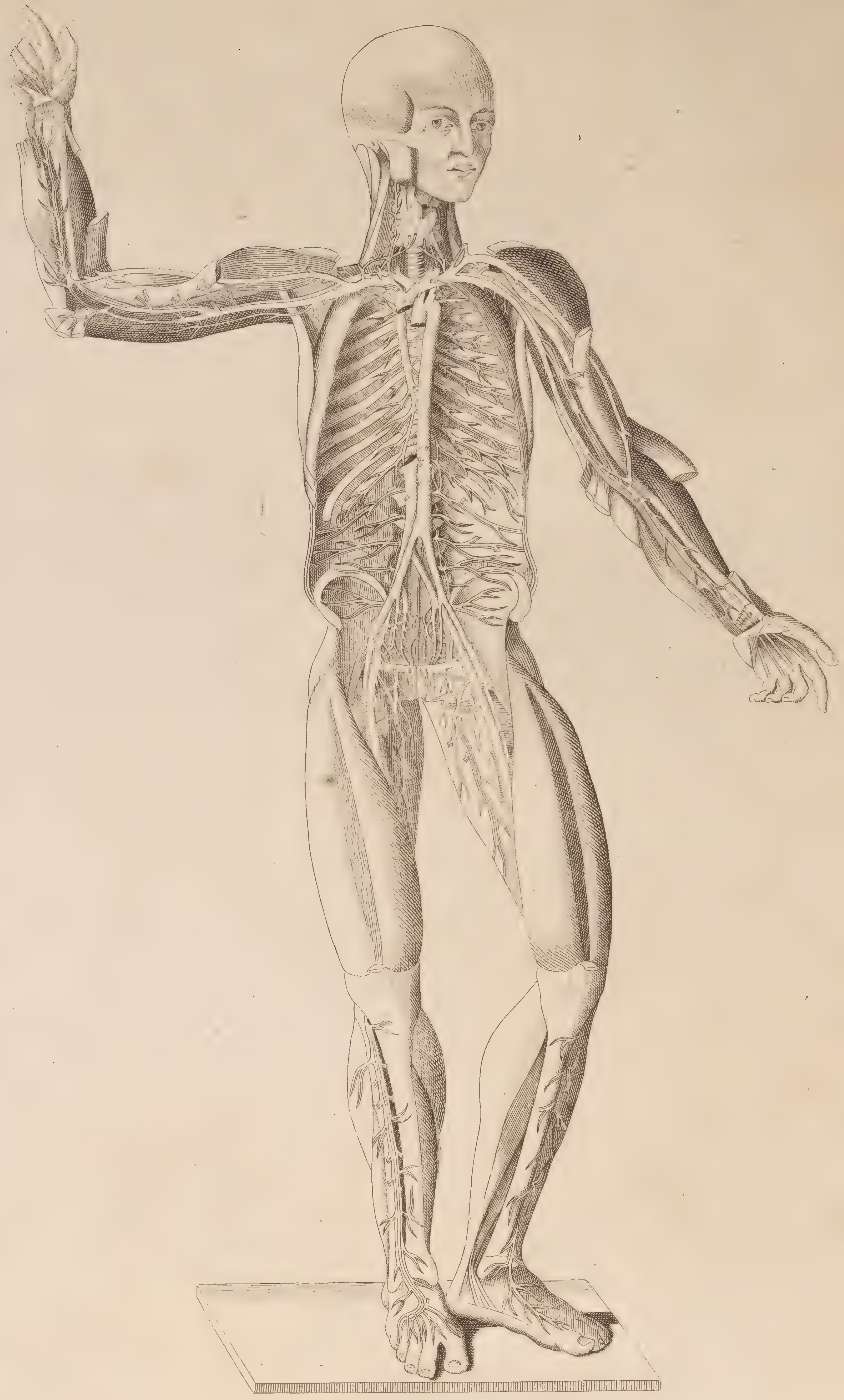
The parts however which are the moſt characteriſtick of the ſex, are,
A A The mammæ.
B The pudendum.

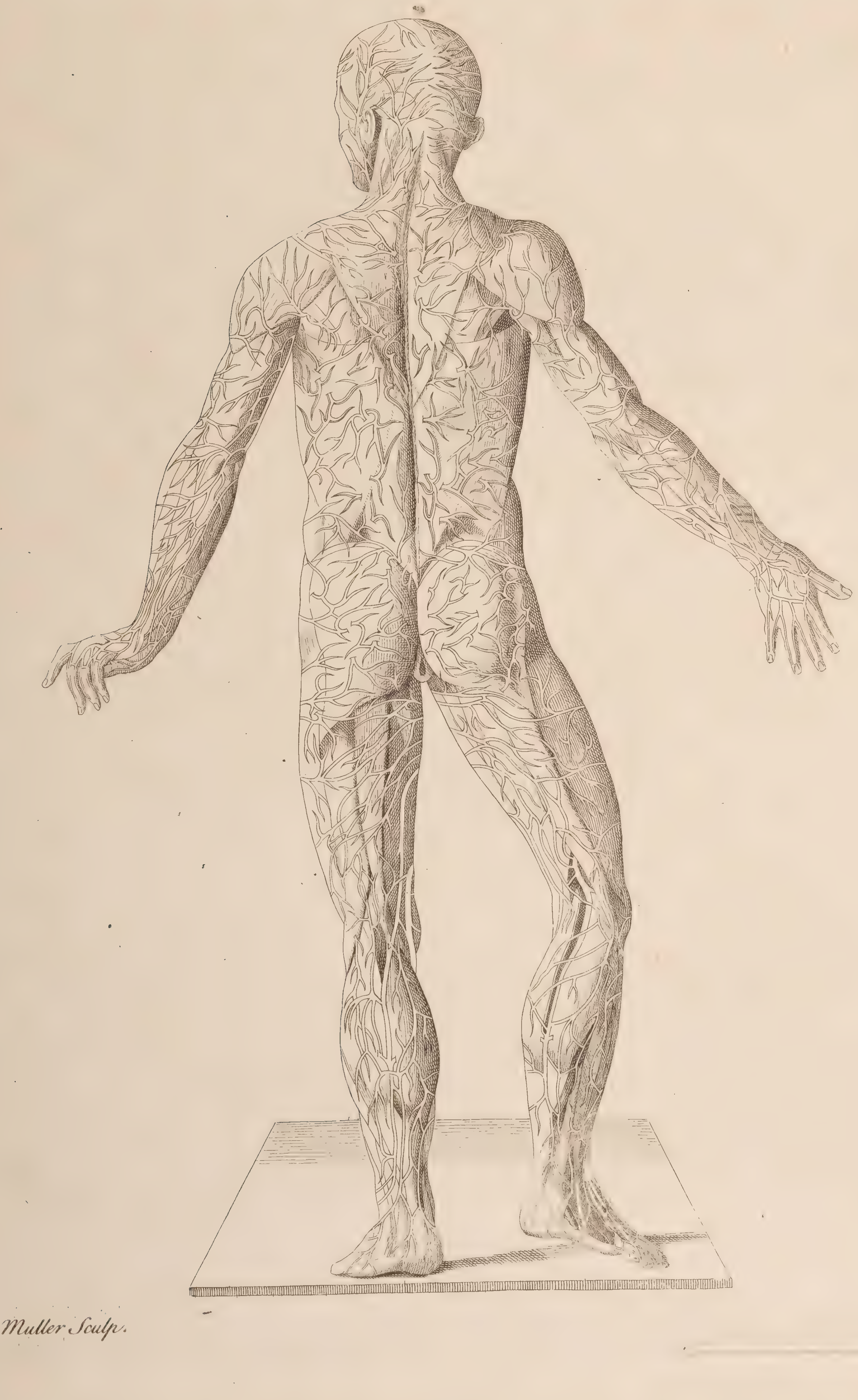
TABLE III.

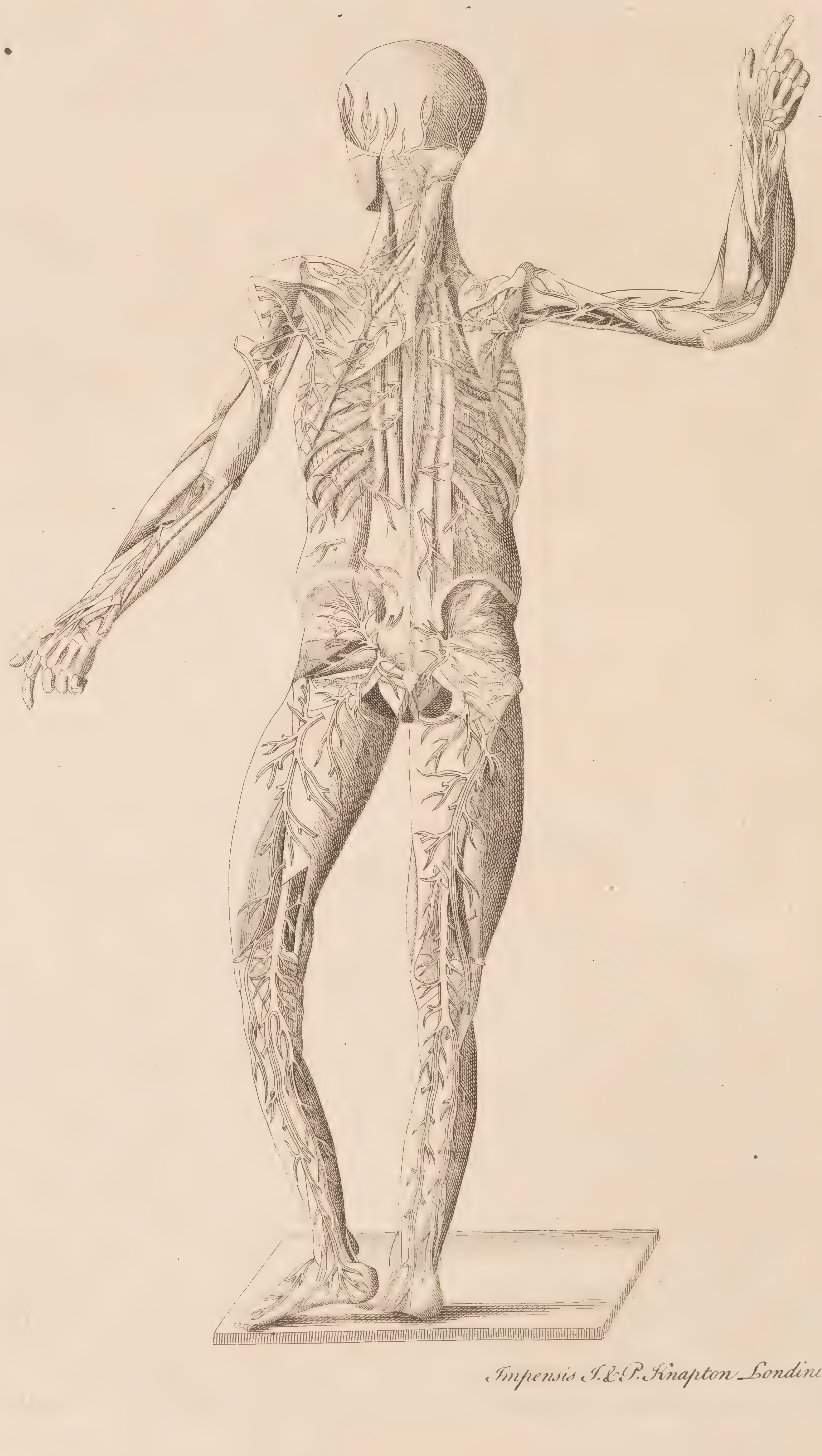
This third Table too is taken from Bidloo, and repreſents the back view of the body of a woman; where the ſame proportions and conformation of parts in general may be obſerved, as in the former. What is to be remarked further in this figure, is,

A The vertex, or ſummit of the head.
B The hind head, the hair tied up over it.
C The temple.
D The neck.
E The ſhoulder.
F The ſhoulder-blade.
G The back.
H The loins.
I The buttock.
K The thigh.
L The ham.
M The calf of the leg.
N The heel.
O The elbow.





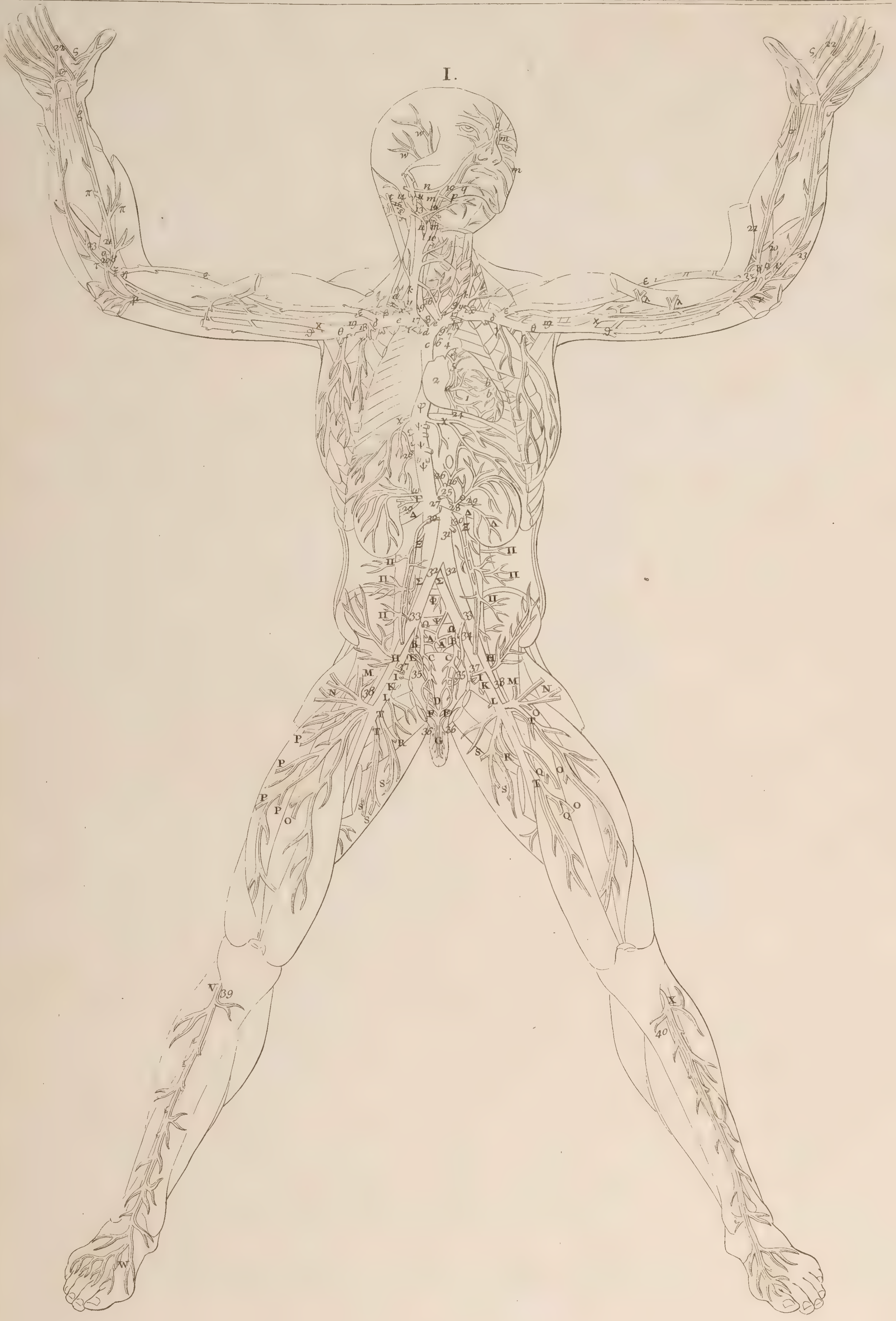




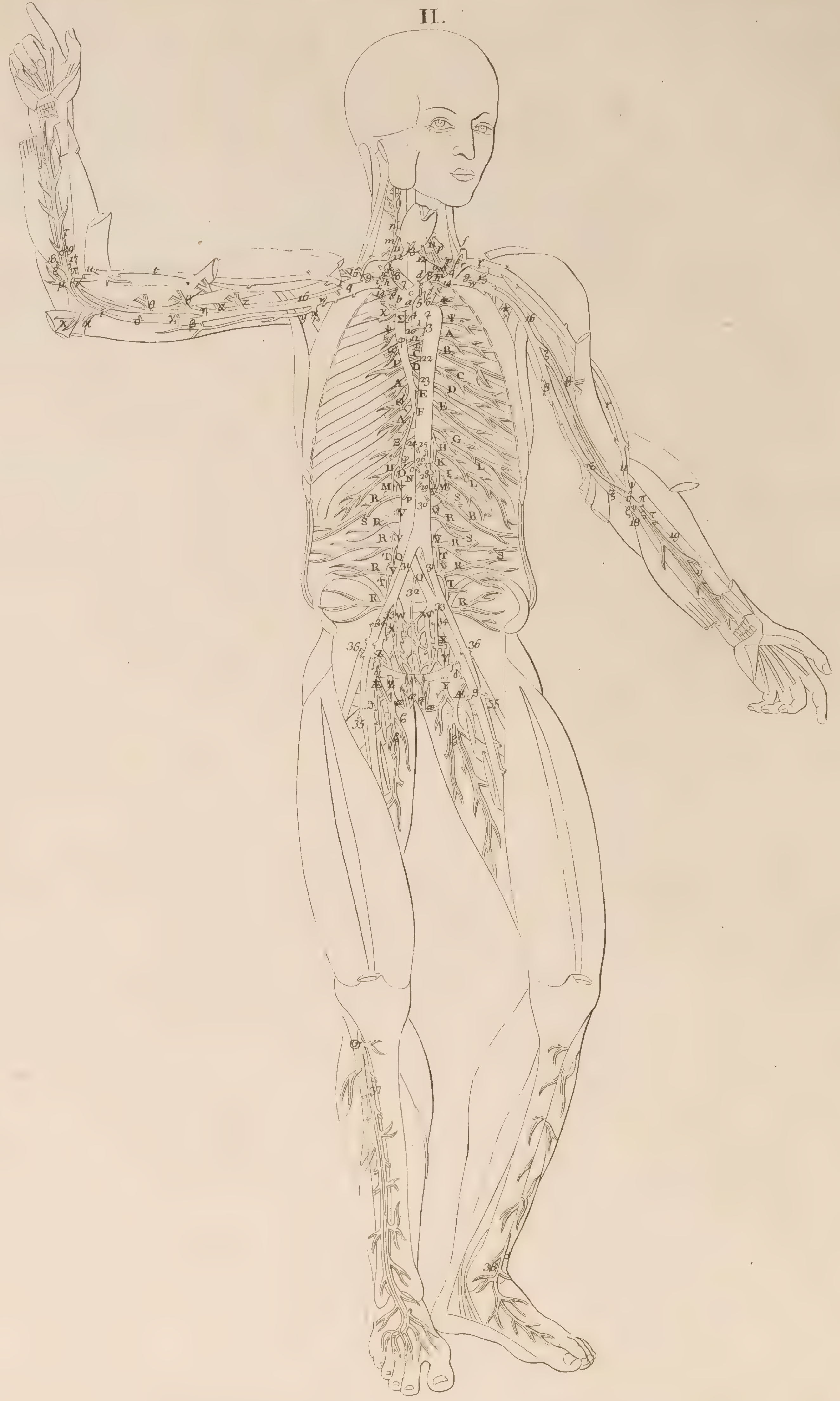
J. S. Muller Sculp.

Impensis J. & P. Knapton Londini, 1750.

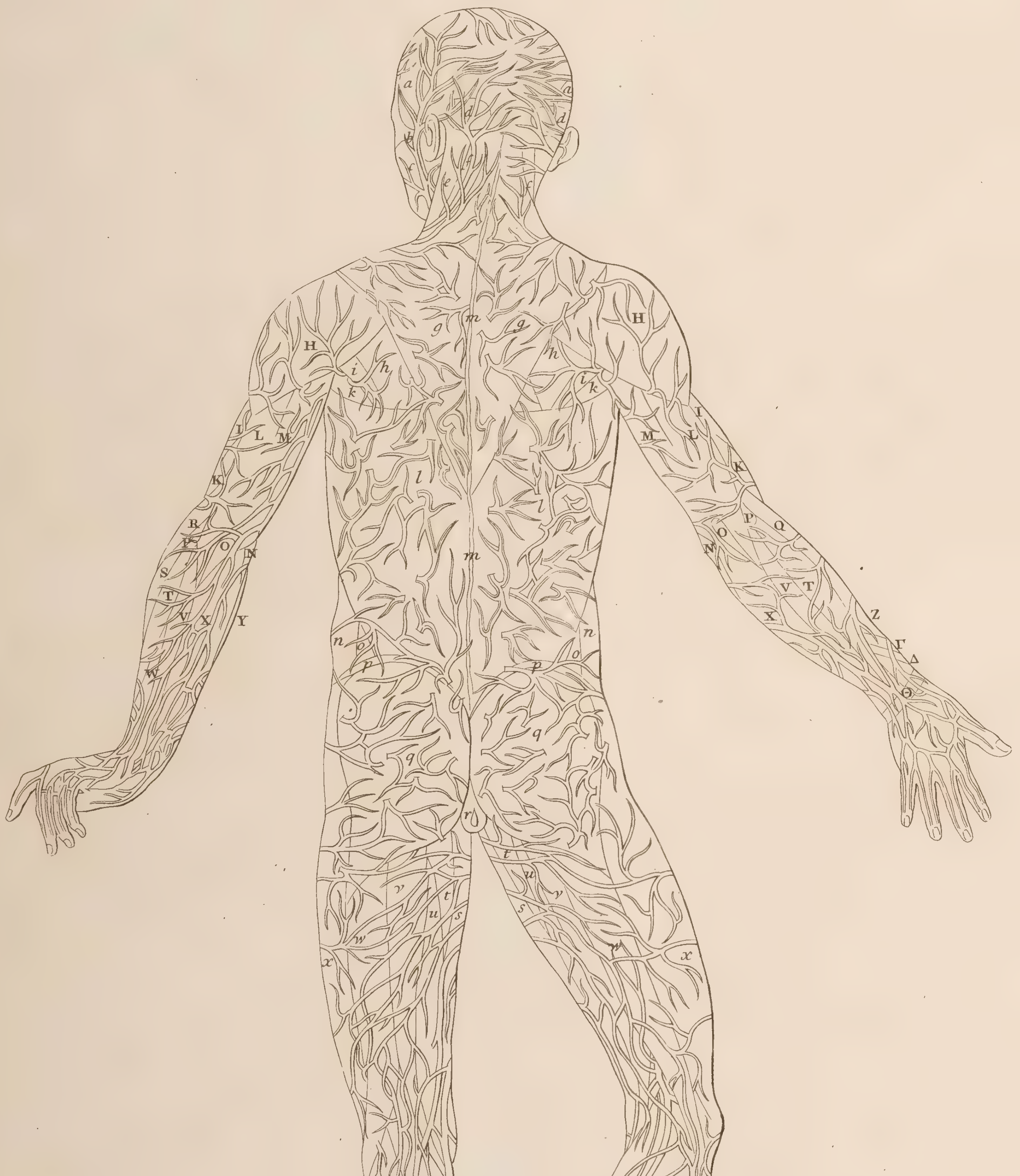
I.



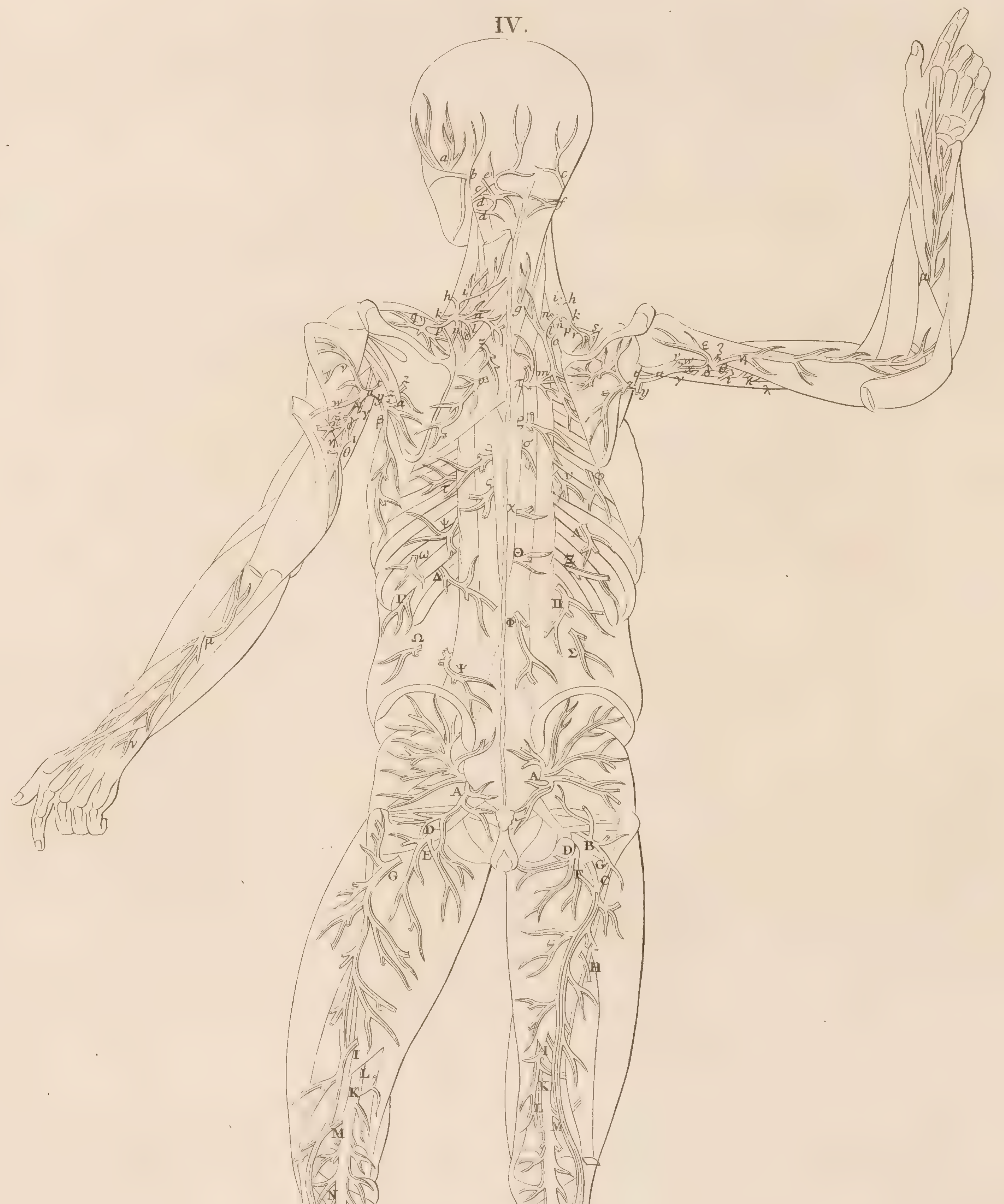
II.



III.



IV.



Impensis I. & P. Knapton Londini, 1749.

J. S. Müller sc.

A

COMPLEAT SYSTEM

OF THE

BLOOD-VESSELS AND NERVES.

TABLE I.

THESE four figures are taken from Euſtachius, with Albinus's text. But ſuch parts of the text, of theſe, as well as of all the other figures which are taken from Euſtachius, as are printed in *Italic* characters, are Euſtachius's own. Fig. 1. anſwers to Tab. 25. No. 2. of Euſtachius. Fig. 2. to Tab. 26. No. 2. Fig. 3. to Tab. 22. No. 2. and Fig. 4. to Tab. 24. No. 2.

FIGURE I.

The heart, veins, and arteries.

This firſt figure ſhews the internal veins and arteries, as alſo a few of the external, as they are diſtributed through the thorax and abdomen, and likewiſe amongſt the muſcles, bones, &c.

It appears ſufficiently conſpicuous in the figure, which veins are attended with concomitant arteries: this may likewiſe be diſcovered in the index of the arteries, which follows that of the veins.

1 The heart.

2 The right auricle.

a The leſſer, or right coronary vein, which joins itſelf with the greater one.

b. b Branches of the greater coronary vein.

c The vena cava ſuperior.

d The root of the vein r, Fig. 18. Tab. 2.

e. e The ſubclavian veins, which as ſoon as they get to the axillæ, are called axillary.

f The thyroid vein, which joins itſelf with a branch of the right internal jugular.

g The root of the vein l, Fig. 18. Tab. 2.

h The root of the vein n, Fig. 18. Tab. 2.

i. i The roots of the mammary veins. See l. l Fig. 16. Tab. 2.

k. k The internal jugular veins, which diſtribute their branches to the neck, &c.

l A branch of the internal jugular vein, which immediately divides into the veins m and r, of which

m m. m m the one, runs up under the digaſtric and ſtylohyoideus muſcles, then creeps up the cheek, afterwards runs obliquely by the ſide of the noſe to the middle of the forehead, and there, together with it's fellow of the other ſide, it opens into the frontal vein o. But firſt it ſends off branches to the lower part of the eye, the external parts of the noſe, the greater canthus, and the eye-brow. With this vein m m, is joined the branch n of the vein v, which is a branch of the external jugular. The ſame vein m m produces a branch, from which ariſe the two veins p and q; one of which p joins itſelf with a branch of the vein r, running to the parts under the lower jaw; and the other q divides again into two, which are diſtributed to the lips. But the one which runs upon the lower lip is continued on, to join it's fellow coming from the other ſide.

r The other branch of the vein l mounts up likewiſe under the digaſtric muſcle; but firſt it gives off a branch, which joining with the vein p, runs to the parts under the lower jaw.

s. s Branches of the internal jugular vein, running into one, which produces the vein t, paſſing through the foramen, which is either in the appendix to the lambdoidal ſuture, or near it, to the lateral ſinus of the dura mater.

u A vein going from the internal jugular to the vein v, which is a branch of the external jugular, running up before the ear.

v A branch of the external jugular vein, which running up upon the outſide of the ſterno-maſtoideus muſcle, afterwards runs on under the parotid gland before the ear, and paſſes beyond it immediately below the ſkin. It is lopped both above and below.

w. w Veins ariſing from a branch of the vein r, which runs up behind the maxilla, and afterwards diſtributes it's branches w w to the pericranium, under the temporal muſcle.

x. x The roots of the external jugular veins.

y. y The roots of the firſt veins which the external jugulars produce.

z A vein, which makes the one k, Fig. 4.

α A vein, which makes the one h, Fig. 4.

β A vein, which ſeems to run on to the lunated notch of the ſcapula, at the root of the coracoid proceſs.

γ. γ Veins which run between the ſerrati antici and ſerrati magni muſcles.

ſ. ſ Veins which run between the latiſſimi dorſi and ſerrati magni muſcles, beſtowing one branch upon the internal part of the latiſſimi dorſi, and the other upon the external part of the ſerrati.

δ. δ *The trunks of the humerary and axillary veins.* Explic. Tab. 2. Fig. 19. and 20. D. d.

ε ε. ε ε *The humerary veins,* called by others the cephalic.

ζ *The root of a common ſuperficial vein,* ariſing from the conjunction of a branch of the *humerary* ε, and the *external axillary.*

η A branch of the *humerary vein, which at the bending of the fore-arm is joined with the axillaris profunda.* Compare Expl. Tab. 2. Fig. 19. G.

θ. θ The *axillary* veins, called the baſilic.

ϑ. ϑ The *external axillary veins,* Euſt. de ven. com. prof. brach. antigr. w, *i. e.* the ſuperficial branches of the *axillary* veins. They are joined by intermediate branches with ϰ. ϰ the *axillares profundæ,* but not in the ſame manner.

ι The *external axillary vein,* joined at laſt by one branch with another of thoſe into which the *axillaris profunda* is divided; and by another with a branch of the *humerary,* from which ariſes the *common ſuperficial vein* ζ.

ϰ. ϰ The venæ axillares profundæ, which ariſe for the moſt part above the middle of the humerus, ſometimes higher, and ſometimes lower. Expl. Tab. 2. Fig. 19. and 20. L. C.

The axillaris profunda is uſually double, and runs down on each ſide of the artery. Sometimes in the middle of it's courſe it's two branches join into one, then are preſently divided, and afterwards united again about the bending of the fore-arm, which Veſalius was ignorant of. Expl. Tab. 2. Fig. 19. M.

The axillaris profunda, above the middle of the humerus is divided into two branches, between which the artery runs, and which join again into one about the bending of the fore-arm, not only as is ſeen in Tab. 2. Fig. 20. but in ſeveral different manners, none of which Veſalius has either painted or deſcribed. Expl. Tab. 2. Fig. 20. m.

He has certainly deſcribed but too ſuperficially the deep-ſeated branch ϰ of the axillary vein, which about the middle of the humerus, ſometimes a little lower, and ſometimes higher up, is almoſt always divided into two branches, which running down on each ſide of the artery, a little below the bending of the fore-arm, are joined together again, ſometimes twice, and alſo with a third kind of branch of the humerary vein, ariſing from that which conſtitutes the common ſubcutaneous vein; and after going a little further, they are again divided into three branches, one of which ο, *which was unknown to Veſalius, dividing into two, ſends one branch* (σ *Fig.* 2.) *to creep upon the broad ligament common to the radius and ulna; and another* (τ *Fig.* 2.) *to the exterior ſide of the ulna, after having perforated the ſaid ligament* (μ *Fig.* 4.) *But the other two being divided in the ſame manner as the artery, run down along with it to the extremity of the hand,* ȣ. ȣ : τ. υ. *De ven. comm. prof. brach. antigr.* 1.

λ. λ Branches going to the biceps of the arm.

μ A branch of the vena *axillaris profunda,* which having paſſed the bending of the fore-arm, joins itſelf with the *common vena profunda.* From this branch are ſent off *others to the beginnings of the muſcles, which ariſe from the internal tuberoſity of the humerus,* of the pronator teres, the internal radial, and the ſublimis. Expl. Tab. 2. Fig 19. and 20. N. n. compare ι Fig. 2.

ν In the left arm, where the branch μ is wanting, and the *axillaris profunda* remains longer divided, thoſe branches upon the inſide of the pronator teres, the radialis internus, and the ſublimis, ariſe ſeparately from the ſame branch at the diviſion of the *axillaris profunda,* from which the vein μ in the right arm ariſes.

The axillaris profunda at the bending of the fore-arm, gives off ſome branches to the beginnings of the muſcles, which ariſe from the internal tuberoſity of the humerus. Expl. Tab. 2. Fig. 19. and 20. N. n.

ξ *The vena communis profunda, which ſeems to be divided into three branches, contrary to the opinion of Veſalius. Expl. Tab. 2. Fig. 19. and 20. P. p.* Compoſed by *the union of the axillaris profunda, and a branch from the humerary, which makes the vena communis.*

ο. ο The veins σ. ς. *Fig. 2. The middle branch of the vena communis profunda, which is neither deſcribed nor painted by Veſalius; creeping between the muſcles which bend the ſecond and third joints of the fingers, upon the whole length of the radius, and of the membranous ligament of the ulna, gives off branches to the muſcles which lie upon the radius; and ſometimes being double, a branch of it runs down on each ſide of the artery. Expl. Tab. 2. Fig. 19. and 20. S. s.*

ȣ. ȣ *Higher branches of the venæ communes profundæ.* Expl Tab. 2. Fig. 19. and 20. R. r, which we call the radial veins: The right vein which is ſingle, is continued to the palm of the hand, where it forms the arch ɞ. The branches π. π going to the ſupinator longus, and the muſculus ſublimis, are produced from it; and afterwards, before it gets to the hand, it ſends off the branch ϱ, which runs below the long abductor of the thumb and the leſſer extenſor, down to the back of the hand, where it makes it's way through between the beginnings of the abductor and interoſſeus muſcle of the fore-finger into the wriſt, diſtributing it's branches deep in the ſubſtance of it. But after it has entered between the beginnings of the abductor and of the interoſſeus muſcles of the fore-finger, it ſends off the branch ς, one branch of which belongs to the ſide of the fore-finger and the thumb, and the other to the thumb itſelf; and by that it joins itſelf with a vein ariſing from the arch ɞ.

But in the left arm he has repreſented the radial vein immediately divided into two, a branch running down on each ſide of the artery. One of theſe σ goes on to the back of the hand, analogous to the vein ϱ. And of that vein σ, the one ς is a branch, the ſame with ς of the right hand, but belonging only to the fore-finger.

The higher branch of the vena communis profunda, running near the radius, is frequently, as well as the lower, divided into two, and going down towards the thumb under the brachial muſcle which bends it, and giving off lateral branches to the neighbouring muſcles, is diſtributed to the inſide of the thumb, or fore-finger. Expl. Tab. 2. Fig. 19. and 20, R. r.

τ *The lower branch of the vena communis profunda,* Expl. Tab. 2. Fig. 19. and 20. Q. q, which we call the ulnar vein. In the palm it is joined to the radial ȣ, in the form of an arch; from which arch ɞ branches are ſent off to the thumb and fingers, as is evident in the figure.

υ In the left arm, inſtead of one ulnar vein, there are two, and the artery runs down between them. Their origin and conjunction immediately after by an intermediate branch, appears from the figure. Their courſe towards the palm likewiſe appears, and of the branches upon it running to the thumb and fingers, otherwiſe than in the right hand, which ſhews the variety of their diſtribution.

The lower branch of the vena communis profunda, running near the ulna, is not always ſingle, but ſometimes dividing into two (which Veſalius takes no notice of) it runs down on each ſide of the artery, and going on under the muſcle which is inſerted into the eighth bone of the wriſt, at the ſame time ſending off branches to the neighbouring parts, is diſtributed to the inſide of the hand, and gives off branches ſometimes to all the fingers, ſometimes to four, and ſometimes to fewer of them. Expl. Tab. 2. Fig. 19. and 20. Q. q.

φ The vena cava inferior.

χ. χ The veins of the diaphragm.

ψ. ψ. ψ The roots of the venæ hepaticæ. See b. b. c. c. c. c Fig. 10. Tab. 2.

ω *A ſmall vein ariſing from the right ſide of the vena cava above the emulgent, and diſtributed to the fatty membrane which covers the right kidney.*

The vena cava, where it firſt leaves the liver on the upper part bended towards the ſpine, ſends off a branch from the right ſide (but not from the left, as ſome authors have mentioned) which is divided into a great number of ſmaller ones, beſtowed upon the fat which covers the right kidney, but not upon that of the left.

Γ *A ſmall vein, ariſing either from the cava, or from the upper part of the right emulgent; which is diſtributed partly to the diaphragm, partly to the right glandula renalis, and partly to the upper part of the body of the kidney.*

The vena cava, near that part where the right emulgent is ſent off, frequently gives off a branch to be beſtowed upon the contiguous part of the diaphragm, the upper part of the ſubſtance of the right kidney, and alſo the glandula renalis of that ſide; which branch, as far as I know, has not hitherto been deſcribed by any anotomiſt.

Δ. Δ The emulgent veins.

It moſt frequently happens both in men and in monkeys, that only one vein and one artery is beſtowed upon each kidney. De Ren. Cap. XV.

The veins and arteries of the kidneys ſeldom divide into branches, 'till they have entered the hollow part of the kidneys. De Ren. Cap. XVII.

Θ *A ſmall vein ariſing from the middle of the left emulgent on it's upper part, which is diſtributed partly to the diaphragm, partly to the left glandula renalis, and partly to the upper part of the fat that covers the kidney.*

Λ *A ſmall vein ariſing from the upper part of the left emulgent near the kidney, diſtributed to the lower part of the fat of the ſame kidney.*

The vein which goes to the left kidney ſends off branches both from it's upper and lower ſide; from the upper ſide, for the moſt part, it produces the one Θ *in the middle of it's courſe, and the other* Λ *hard by the kidney. The firſt of theſe* Θ *ſends off ſmaller branches to the upper part of the fat, which run down as far as the middle of the kidney, to the glandula renalis, and to the diaphragm. Theſe branches, which are ſometimes very conſiderable, anaſtomoſe very beautifully with the veins of the diaphragm. But the laſt and ſuperior branch* Λ, *is diſtributed to the lower part of the fat about the kidney. The emulgent vein below, about the middle of it's courſe, produces the ſpermatic (*Ξ *of the left) which is likewiſe, though ſeldom, imitated on the right ſide. But it is ſtill more ſeldom that we ſee this happen in both the emulgents together; and this is the diſtribution of the veſſels which moſt frequently occurs.* De Ren. Cap. XVI.

Ξ. Ξ The ſpermatic veins; the left of which ariſes from the inferior part of the left emulgent vein; and the right from the right ſide of the vena cava, a little below the right emulgent. The branches which they ſend off to the neighbouring parts appear, as alſo thoſe by which they are joined with the ſpermatic arteries, and likewiſe another conjunction of the left ſpermatic vein with the artery of the ſame ſide. See Fig. 11. Tab. 2.

Π. Π. Π. Π. Π. Π Branches of the lumbar veins; viz. of the third, fourth, and fifth.

Σ. Σ The iliac veins.

Φ A ſmall vein, which ariſing from the left iliac, is diſtributed to the back part of the pelvis. There are frequently two or three ſuch found.

Ψ A vein like the former, which here joins itſelf with the branches of the hypogaſtrics.

Ω. Ω The hypogaſtric veins.

A. A Branches of the hypogaſtric veins, running upon the poſterior part of the pelvis, and anaſtomoſing with one another, and with the vein Ψ.

B. B Branches of the hypogaſtric veins, which go out to the buttocks by the ſpaces between the os ſacrum and the hip bones.

C. C Branches of the hypogaſtric veins, running upon the fore part of the bladder, where they are variouſly divided, and united together again. But about the root of the penis they run into one vein D. See g. g. k. Fig. 11. Tab. 2.

E a vein, which ariſing from the iliac a little below the hypogaſtric, runs on to the fore part of the bladder, and joins itſelf with the vein C. See i Fig. 11. Tab. 2.

F. F The branches l. m Fig. 11. Tab. 2. of the hypogaſtric veins, which about the root of the penis unite with the vein D, whereby is produced

G a vein running upon the back of the penis. See n, Fig. 11. Tab. 2.

H. H Branches of the iliac veins, which run upon the fore part of the pſoæ and internal iliac muſcles.

I. I The roots of the epigaſtric veins, z. z Fig. 16. Tab. 2.

K. K The roots of the venæ ſaphenæ.

L. L The crural veins, which ſpread their branches upon the thighs. Their various diſtribution upon the two thighs is expreſſed.

M. M Branches going to the internal iliacs.

N. N To the tenſores vaginarum femorum.

O. O To the cruræi.

P. P. P. P. P. P To the vaſti externi.

Q. Q To the vaſtus internus.

R. R To the ſhort adductors of the thighs.

S. S. S. S. S To the great adductors of the thighs.

T. T. T. T Theſe branches divide themſelves into two, one running down on each ſide of the artery.

V The branch N Fig. 4. of the vena poplitea, which paſſing forwards between the tibia and fibula at the upper part of the leg, runs down upon the membrane which connects theſe two bones, and afterwards upon the tibia, and beyond that deep into the back part of the extremity of the foot. W a branch of it going through to the ſole of the foot.

X a different diſtribution of the abovementioned vein V. This immediately divides itſelf into two branches, one of which runs down on each ſide of the artery. Beſides, it likewiſe differs in it's branches from the vein V, both in the leg and the extremity of the foot.

3 The pulmonary artery.

4 The aorta.

5 The right coronary artery of the heart. It joins it's branches to others of the leſſer coronary vein.

Correſpondent to the veins b. b are the branches of the left coronary artery.

6 The common root of the aorta, which afterwards makes the common root of the right ſubclavian and carotid arteries, and of the left carotid.

7 The left ſubclavian artery.

8 The common root of the right ſubclavian and carotid arteries.

9 The carotid arteries, attending the internal jugular veins k. k.

10. 10 A branch of the external carotid artery, which attends firſt the vein m, running up with it behind the digaſtric and the ſtylohyoideus muſcles, and climbing up upon the cheek; but afterwards it attends the vein q, divides itſelf with it into two, and is diſtributed to the lips. That which runs upon the lower lip, continues itſelf to it's fellow coming from the other ſide.

11 A branch of the external carotid artery; from which is produced the branch 12 going to the parts under the lower jaw, which is attended with a branch of the vein r. 13. 13 Is another branch, which runs up behind the digaſtric and ſtylohyoideus muſcles, and then accompanies the vein v, and runs up with it under the ſkin before and above the ear. 14 Is a third branch, which makes b, Fig. 4. 15 Is a fourth, which runs backwards under the trachelomaſtoideus, the ſplenius capitis, and cucullaris muſcles; afterwards it perforates the cucullaris, where it riſes from the cranium, and aſcends by the occiput, c Fig. 4.

From the branch 13 ariſes another, which together with that branch of the vein r, from which the veins w. w are produced, runs up behind the

lower

lower jaw, and afterwards together with the veins w. w, is diſtributed to the perioſteum upon the ſide of the cranium under the temporal muſcle.

16 Is the artery 12 Fig. 2. and it's branches accompany thoſe of the vein f.

17. 17 The roots of the mammary arteries, m. m Fig. 16. Tab. 2. accompanying the roots of the mammary veins i. i.

The vein z is accompanied by the artery k Fig. 4. Do the branches of the ſame artery on the left ſide accompany thoſe branches of the internal jugular vein, which run backwards towards the ſhoulder?

The vein β is attended with a branch of the ſubclavian artery, which appears to run on to the lunated notch of the ſcapula, at the root of the carocoid proceſs.

18 An artery going to the pectoral and deltoid muſcles. It joins it's concomitant branch to a branch of the vein γ.

The vein γ of the left ſide has an artery attending it, which ſinks down with it between the ſerratus anticus and the ſerratus magnus muſcle.

The veins ſ ſ are accompanied with branches of the axillary arteries, which run down together with them between the latiſſimi dorſi and the ſerrati magni muſcles, one branch belonging to the internal part of the latiſſimi, and the other to the external part of the ſerrati.

19. 19 The axillary arteries, which are afterwards called the brachials. They attend the veins θ κ. θ κ.

The veins λ. λ are attended by the arteries which go to the biceps muſcle of the arm.

The veins μ. ν are attended by the ſame arteries, and their branches.

20. 20 The arteries 19. 19 Fig. 2. are attended by the veins ο. ο.

21. 21 The radial arteries. They attend the radial veins ȣ. ȣ.

The veins π. π are attended by the branches of the radial artery which go to the muſculus ſublimis and ſupinator longus.

The veins ϱ. σ are attended by branches of the radial arteries, which run down under the long abductors of the thumbs and the leſſer extenſors to the back of the hand, where they paſs through between the beginnings of the abductors and the foremoſt interoſſeus muſcles of the thumbs to the palm of the hand, and diſtribute their branches deep in the palms.

22. 22 Branches of theſe arteries which attend the veins ϱ. σ, which branches are ſent off, after they have entered between the beginnings of the abductors and of the foremoſt interoſſeus muſcles of the thumbs. They attend the veins ς. ς. But in the right hand they likewiſe ſend a branch to the thumb, as the concomitant vein ς does.

23. 23 The ulnar arteries, which attend the ulnar veins τ. υ. In the right arm is exhibited the ulnar artery continued into the radial in the hand in form of an arch, the ſame as that of the vein @; from which arch are alſo ſent off branches with the veins to the thumb and fingers.

24. 24. 25 The aorta deſcendens. 25 Shews the part where it leaves the diaphragm.

26. 26. 26 The phrenic arteries, which join correſponding branches to others of the phrenic veins χ. χ.

27. The root of the celiac artery.

28 The root of the upper meſenteric artery.

29. 29 The emulgent arteries. They attend the emulgent veins Δ. Δ.

30. 30 The ſpermatic arteries. Thoſe branches appear by which they are united with the ſpermatic veins Ξ. Ξ, which they accompany in their courſe. On the left ſide there is likewiſe ſhewn another conjunction of the artery with the vein which attends it: See W. X Fig. 11. Tab. 2.

31 The root of the lower meſenteric artery.

32. 32 The iliac arteries, attending the iliac veins Σ. Σ.

33. 33 The hypogaſtric arteries, which accompany the hypogaſtric veins Ω. Ω.

34 The root of the left umbilical artery. The ſame on the right ſide.

Beſides the hypogaſtric arteries ſend off lateral branches, which accompanying the veins B. B, go out with them to the buttocks, by the ſpaces between the os ſacrum and the hip bones.

35. 35 Branches of the hypogaſtric arteries, which run upon the fore part of the bladder, mingled with the veins C. C.

36. 36 Branches of the ſame arteries, which run upon the back of the penis. See u. u Fig. 11. Tab. 2. They attend the vein G.

The veins H. H are accompanied with branches of the iliac arteries, which run upon the fore part of the pſoæ and internal iliac muſcles.

37. 37 The roots of the epigaſtric arteries. See a. a Fig. 16. Tab. 2. They accompany the roots of the epigaſtric veins I. I.

38. 38 The crural arteries, which, together with the concomitant crural veins L. L, diſtribute branches to the thighs, and accompany every where the branches of theſe veins M. M. N. N. &c.

39 The branch N Fig. 4. of the popliteal artery, which paſſing forwards between the tibia and fibula in the upper part of the leg, runs upon the membrane between theſe two bones, and afterwards upon the tibia, ſinking down at laſt to the back part of the extremity of the foot. It accompanies the vein V, and produces a branch, which attending the vein W, paſſes through to the ſole of the foot.

40 The ſame branch 39 of the popliteal artery, the various diſtribution of which is here ſhewn; for it differs from that on the right leg, in it's branches both on the leg, and the extremity of the foot. It attends the vein X.

FIGURE II.

This figure likewiſe ſhews the internal veins and arteries, and a few of the external, as they are diſtributed through the thorax and abdomen, and alſo amongſt the muſcles, bones, &c. *but eſpecially the more deeply ſeated ones than thoſe in the laſt figure; and likewiſe various diſtributions of ſome of thoſe contained in the laſt.*

From this figure likewiſe appears what arteries attend upon certain veins; and the ſame thing might be diſcovered in the explanation of the arteries, which I ſhall ſubjoin to that of the veins.

a The vena cava ſuperior, cut off immediately below the origin of the vena azyga.

b The root of the vein r, Fig. 18. Tab. 2.

c. c The ſubclavian veins.

d The root of the vein f, Fig. 1.

e The root of the vein l, Fig. 18. Tab. 2.

f The root of the vein n, Fig. 18. Tab. 2.

g The root of the right mammary veins, l Fig. 16. Tab. 2. The ſame on the left ſide.

h. h The roots of the internal jugular veins, k. k Fig. 1.

i The root of the right external jugular vein.

k. l A double root, from which the right vertebral vein takes it's origin.

m The trunk of the right vertebral vein, produced from the conjunction of the roots k and l; which it likewiſe ſhews to be united by an intermediate branch, before that conjunction. This vein, together with it's attendant artery, 11 enters the foramen of the tranſverſe proceſs of the ſixth vertebra of the neck, reckoning from the head.

n A branch of the right vertebral vein, climbing up without the vertebral canal.

o The left vertebral vein, which enters the foramen of the tranſverſe proceſs of the ſeventh vertebra of the neck, without being attended by any artery.

p. p Another vertebral vein, which, together with it's attendant artery, enters the tranſverſe proceſs of the ſixth vertebra of the neck.

Unleſs perhaps the vein (which is ſometimes the caſe) before it enters theſe foramina of the tranſverſe proceſſes of the vertebræ, be divided into two; for then the larger branch perforates the foramen of the ſixth vertebra, and the leſſer that of the ſeventh, but the laſt has either no artery at all attending it, or elſe it is ſo ſmall as not to deſerve to be taken notice of: and hence I imagine it happens, that frequently the foramina of the ſeventh vertebra are obſerved to be ſmaller than thoſe of the ſixth: the diſtribution too of theſe veſſels is likewiſe various in other reſpects. Oſſium exam.

q. q *The trunks of the humerary and axillary veins.* Expl. Tab. 2. Fig. 19. and 20. D. d.

r. r. r. ſ. s Are the following obſervations of Euſtachius to be applied here? *From the great diviſion of the vena cava in the jugulum, is firſt produced the internal jugular vein, a great deal leſs than the external* (in an ape) *contrary to what it is obſerved in man. After this it is divided into two branches,* viz. *the axillary* w *which is the loweſt, and the humerary* r. r. r *the higheſt. From the humerary is immediately produced the external jugular* ſ, *which at it's origin for the moſt part is forked* s, *making a kind of foramen for the clavicle to paſs through; which I thought proper to obſerve, not only to inform thoſe who are leſs verſed in anatomy, that the external jugular vein in man has no communication with the humerary, which is ſent off after it, unleſs it is in preternatural caſes; but likewiſe, &c. De vena comm. prof. brach. antigr.* 1.

t. t *The humerary vein,* commonly called the cephalic.

u. u *The interior branches of the humerary veins, divided into two a little above the bending of the fore-arm; which branches being joined to others of the axillaris, make the common veins of the arm. Expl. Tab.* 2. *Fig.* 19. *and* 20.

v *The root of the common ſuperficial vein. Ibid.* H. h.

w. w *The axillary veins,* commonly called the baſilic.

x. x The roots of the veins ſ. ſ, Fig. 1.

y The ſuperficial branch of the vein x, joining itſelf with the beginning of the *external axillary.*

z. α Branches of the *axillary vein,* z going to the coracobrachialis muſcle, and α to the biceps of the arm.

β. β The external axillary veins of Euſt. de ven. comm. prof. brach. antigr. IV. that is, the ſuperficial branches of the *axillary veins.*

γ A ſmall branch, which joins the *external axillary* with the *axillaris profunda.*

δ Another branch, by which the *external axillary* joins itſelf with the branch ι of the *axillaris profunda.*

ε The exterior branch *of the external axillary* vein, *which is divided into two a little above the internal tubercle of the humerus.* Which branch, *joined with another of the humerary* u, *conſtitutes the common ſuperficial vein v.* Expl. Tab. 2. Fig. 19. and 20.

ζ Two veins, which are in the place of the *axillaris profunda.* They join together almoſt in the middle of the humerus, afterwards they divide, and at the beginning of the fore-arm unite again into one.

η The *vena axillaris profunda,* Expl. Tab. 2. Fig. 19. and 20. L. l. This riſes about the middle of the length of the humerus. Afterwards, before it gets down to the fore-arm, it divides into two branches, which about the beginning of the fore-arm unite again into one. Compare Expl. Tab. 2. Fig. 20. m.

θ. θ. θ Branches going to the bicipites muſcles of the arms.

ι A branch of the *vena axillaris profunda*, which ariſing near the poſterior condyle of the humerus, from the other trunk of that vein, and having received the vein δ from the *external axillary*, runs down to the fore-arm, where it joins in with the vena *profunda communis*. From *this* branch *are ſent off ſmaller ones to the origins of the muſcles, which ariſe from the interior tuberoſity of the humerus*, Expl. Tab. 2. Fig. 19. and 20. N. n: viz. κ a branch going to the pronator teres, λ to the radieus internus and the ſublimis, and μ to the flexor profundus muſcle. Compare μ Fig. 1.

ν *A ſlip of the interior branch of the humerary vein, divided into two above the bending of the fore-arm, which ſlip is joined with the axillaris profunda immediately at the bending. Expl. Tab. 2. Fig. 19. G.*

ξ *A branch ariſing from the humerary vein, where it goes to form the common vein, or from the common vein itſelf* (unleſs likewiſe from the branch ε *of the external axillary) which branch is joined with the axillaris profunda. See O. o. Fig. 19. and 20. Tab. 2.*

ο. ο *The common venæ profundæ, which appear to be divided into three branches, contrary to the opinion of Veſalius. Expl. Tab. 2. Fig. 19. and 20. P. p.* Produced *from the conjunction of the axillares profundæ and the branches ν and ξ, ariſing either from the humerary vein where it goes to form the common vein, or from the common vein itſelf*, (unleſs likewiſe from the branch ε *of the external axillary.)*

π. π The roots of the radial veins, ȣ. ȣ Fig. 1.

ϱ. ϱ The roots of the ulnar veins, τ. υ Fig. 1.

σ. ς *The middle branch of the vena communis profunda, which is neither deſcribed nor painted by Veſalius; creeping between the muſcles which bend the ſecond and third joints of the fingers, upon the whole length of the radius, and of the membranous ligament of the ulna, it gives off branches to the muſcles which lie upon the radius; and being ſometimes double ς, a branch of it runs down on each ſide of the artery. Expl. Tab. 2. Fig. 19. aud 20. S. s.*

τ. τ *A ſlip ſent off from the above middle branch of the vena communis profunda, a few inches below the head of the ulna; which perforating the membranous ligament of the radius and ulna, runs to the back part of the arm, and is diſtributed to the muſcles which riſe from the ulna, and to others lying upon it* (μ μ *Fig.* 4.) *This ſlip, which is ſometimes double, and runs down on each ſide of the artery, is careleſſly overlooked by Veſalius. Expl. Tab. 2. Fig. 19. and 20. T. t.*

υ A branch of the ſame vein ς paſſing through to the back part of the fore-arm, where it makes ν Fig. 4.

φ. φ The vena azyga.

In man this vein does not run on in a ſtrait courſe, but above the right trunk of the aſpera arteria, is bended a little to the right, and very conſiderably backwards, towards the ſpine, and as ſoon as it gets to the roots of the vertebræ, it begins to riſe up, and climb towards the middle part of them, which it reaches about the eighth or ninth vertebra of the thorax, where it is quite in the middle, and hid by the artery, goes down to the bottom of the thorax, being firſt, however, divided into two. De vena ſine pari, antigr. XII.

The vena azyga, about the eighth or tenth vertebra of the thorax, is divided into two branches, viz. *the right and left. Theſe run downwards, paſs the diaphragm, and each of them terminates variouſly by one or more branches, either in the back part of the cava near the origin of the emulgent vein, or in the emulgent itſelf, aud eſpecially the left backwards, (for I do not remember that I have ever obſerved the ſame on the right) ſometimes higher, and ſometimes lower,* viz. *at that part where it ſends off the ſpermatic vein.* De Ren. Cap. XVI.

χ A branch of the vena azyga, which preſently terminates in the third and fourth right intercoſtal veins.

ψ. ω. Γ. Δ. Θ. Λ. Ξ. Π The following eight intercoſtal veins of the right ſide, which the azyga ſends off; viz. ψ the fifth, ω the ſixth, Γ the ſeventh, Δ the eighth, Θ the ninth, Λ the tenth, Ξ the eleventh, Π the twelfth.

Σ A branch of the vena azyga, which preſently terminates in two of the intercoſtal veins of the left ſide, viz. Φ the third, and Ψ the fourth.

Ω A branch of the ſame vein, which very ſoon forms other two intercoſtal veins of the left ſide, viz. A the fifth, and B the ſixth.

C. C Another branch of the ſame vein, which makes the ſeventh left intercoſtal vein.

D. D Another branch of the ſame vein, which makes the eighth left intercoſtal vein.

E. E A branch ſtill of the ſame vena azyga, making the ninth left intercoſtal vein.

F The left branch of the vena azyga, that divides itſelf into two about the eighth vertebra of the thorax, which terminates in the following left intercoſtal veins, viz. G the tenth, H the eleventh, and ſeemingly I the twelfth.

The intercoſtal branches of the vena ſine pari, as ſoon as they are ſent off from this vein, run firſt, together with the arteries, between the pleura and the external intercoſtal muſcles, becauſe the internal intercoſtals do not reach ſo far as the roots of the ribs; and going on a little way, they take their courſe between the two layers of the intercoſtals. De vena ſine para antigr. XVIII. This is ſhewn on the right ſide of the figure, for on the left the internal intercoſtals are removed.

K A vein which unites the eleventh and twelfth of the left intercoſtals.

The intercoſtal veins *in many places in their courſe are mingled with one another, but eſpecially about the poſterior part of the back.* De vena ſine pari, antigr. XVIII.

L. L. L. L The intercoſtal veins, *having perforated the muſcles which go by the ſame name, are diſperſed between them, and even creep upon the fat under the ſkin, which ought to be taken notice of, if it was for no other reaſon than this, that the muſcles which lie upon the poſterior part of the back, have moſt part of their nouriſhment from thoſe branches which run externally.* De vena ſine pari, antigr. XVIII.

M. M *The lowermoſt branches of the vena* ſine pari, *are for the moſt part mingled and united with the firſt veins of the loins, which take their origin near the ſecond of the lumbar vertebræ.* De vena ſine pari, antigr. XVII.

N The vena cava inferior, cut off immediately above the origin of the emulgents.

O. O The roots of the emulgent veins.

P The root of the right ſpermatic vein.

Q. Q The iliac veins.

R. R. R. R. R: R. R. R. R. R Ten lumbar veins, five on each ſide. On the left ſide the third and fourth are united.

The firſt lumbar veins have their origin near the ſecond vertebra of the loins. De vena ſine pari, antigr. XVII.

S. S. S. S Branches of the lumbar veins perforating the tranſverſe muſcles of the abdomen.

T. T. T. T Veins which join the third of the lumbars with the fourth, and the fourth with the fifth.

V. V. V. V: V. V. V. V Branches of the lumbar veins paſſing through to the back part of the loins.

W. W The hypogaſtric veins, the diſtribution and conjunction of whoſe branches in the back part of the pelvis are ſufficiently conſpicuous. Compare A. A Fig. 1.

X. X Branches of the hypogaſtric veins, going out to the buttocks, through the ſpaces between the os ſacrum and the hip-bones.

Y. Y A branch of the left hypogaſtric vein, which paſſing through the great foramen of the coxendix, and indeed through a niche in the upper margin of that foramen, goes out to the internal ſide of the thighs, where it diſtributes branches between the pectineus, the ſhort and long adductors of the thigh, and the gracilis, forwards; and the external obturator, and great adductor, backwards.

Z. Z The ſame vein on the right ſide, as Y. Y on the left; but here it ariſes not from the hypogaſtric, but from the iliac.

Æ. Æ Branches of the crural veins, which join in with the veins Y and Z, and are united with them.

α. α. α. α Branches of the veins Y and Z, which wind round the heads of the ſhort and long adductors of the thighs, and of the graciles, and run up towards the pubis upon the fore-part of the graciles.

ϐ. ϐ: ϐ Theſe branches are ſingle in the right thigh, but in the left each of them is divided into two, one of which runs down on each ſide of the artery. They give branches to the great adductors of the thighs.

ſ. ſ The roots of the epigaſtric veins, z. z Tab. 2. Fig. 16.

δ. δ The roots of the venæ ſaphenæ.

ϑ. ϑ The crural veins.

But a great many branches, which the hypogaſtric, iliac, and crural veins ſend off, and are here cut away, are repreſented in Fig. 1. and underſtood from that.

ϭ A variation of the vein V Fig. 1. for here it immediately divides into two branches, one of which runs down on each ſide of the artery.

ȣ A variation of the vein X Fig. 1. for here it remains ſingle. The large branches which appear upon the upper part of the left leg, belong to the ſame vein, which in this poſition of the foot cannot be ſeen there.

1 The aorta, cut away immediately above the heart. 2 The angle of the aorta. 3 The aorta deſcendens.

4 An artery, which ſoon divides itſelf into two of the right intercoſtals, viz. the third and fourth, accompanying the veins χ.

5 The common root, which terminates in that of the right ſubclavian and right carotid artery, and in the left carotid.

6 The root of the left ſubclavian artery.

7 The common root of the right ſubclavian and right carotid arteries.

8. 8 The roots of the carotid arteries.

9. 9 The ſubclavian arteries.

10. 10 Branches of the ſubclavian arteries, which give off

11. 11 The vertebrals, which accompanying the veins m and p, enter the foramina of the tranſverſe proceſſes of the ſixth vertebra of the neck.

12. 12 Theſe anſwer to the vein f Fig. 1. The branch 13, together with the branches of the vein f Fig. 1. aſcends upon the fore part of the thyroid gland. They likewiſe give off branches, which run up behind that gland.

14. 14 The roots of the mammary arteries. They accompany the roots of the mammary veins g.

15. 15 Branches which make β Fig. 1. and run on to the lunated notches of the ſcapulæ, at the roots of the coracoid proceſſes.

16. 16 The brachial arteries, which attend the *axillary* veins.

The vein z is attended by the artery which goes to the coracobrachialis muſcle.

The veins α. θ. θ. θ are attended by the arteries going to the bicipites muſcles of the arms.

The vein ι is attended by a branch of the brachial artery, and likewiſe to the branches of the ſame vein are joined others going to the pronator teres, the ſublimis, and flexor profundus muſcle.

17 The root of the radial artery. It attends the vein π.

18. 18 The roots of the ulnar arteries. They accompany the veins ϱ. ϱ.

19. 19 The deep ſeated arteries of the fore-arms. They accompany the veins σ. ς. That in the left arm runs down between the two branches into which the vein divides itſelf.

The veins τ. τ are accompanied by branches of the laſt-mentioned arteries, which together with them paſs through the ligament between the radius and ulna, to the outſide of the arm, where they make μ. μ Fig. 4.

The vein υ is attended by a branch of the ſame artery paſſing through to the back of the fore-arm, where it makes ν Fig. 4.

20 The fifth intercoſtal artery of the right ſide, which accompanies the vein Ψ; 21 the ſixth, which attends the vein ω; 22 the ſeventh, attending the vein Γ; 23 the eighth, attending the vein Δ. The vein Θ is attended by the ninth. The vein Λ by the tenth. 24 The eleventh, attending the vein Ξ. The vein Π is attended by the twelfth.

The intercoſtal veins of the left ſide Φ. Ψ. A. B. C. D. E. G. H. I are attended by the third, fourth, fifth, ſixth, ſeventh, eighth, ninth, tenth, eleventh, and twelfth, left intercoſtal arteries.

The veins L. L. L. &c. are likewiſe attended by branches of the intercoſtal arteries.

25 The roots of the phrenic arteries. See 26. 26 Fig. 1.

26 The root of the celiac artery.

27 The root of the ſuperior meſenteric artery.

28 The root of the left emulgent artery.

29 The roots of the ſpermatic arteries. See 30. 30 Fig. 1.

30 The root of the inferior meſenteric artery.

The lumbar veins R. R. &c. are attended by the lumbar arteries.

The veins V. V. &c. are attended by branches of the lumbar arteries which paſs through to the back part of the loins.

The veins S. S. &c. are attended by branches of the ſame lumbar arteries, which perforate the tranſverſe muſcles of the abdomen.

31. 31 The iliac arteries, which accompany the iliac veins Q. Q.

32 An artery running upon the fore part of the vertebræ of the loins, and of the os ſacrum; which I have found ariſing from the poſterior part of the aorta, immediately above it's diviſion into the iliacs.

33. 33 The hypogaſtric arteries, which attend the hypogaſtric veins W. W.

34. 34 The roots of the umbilical arteries.

The roots of theſe arteries are more plainly pointed out 35. 35 Fig. 1. there being hardly room to mark them here; but you will be able to diſtinguiſh them by comparing this with the firſt figure.

The veins X. X are attended by branches of the hypogaſtric arteries, which go out to the nates, by the ſpaces between the os ſacrum and the hip bones.

The vein Y. Y is attended by a branch of the left hypogaſtric artery, which runs out with it by a groove in the upper margin of the great foramen of the hip-bone, to the inner part of the thigh; where it firſt ſends off branches forwards to the pectineus muſcle, the ſhort and long adductors of the thigh, and the gracilis; and backwards to the external obturator and great adductor.

The vein Z. Z is attended by the companion to that artery which attends the vein Y. Y on the left ſide; but here it does not ariſe from the hypogaſtric artery, but from the root of the epigaſtric.

The veins Æ. Æ are attended by branches of the crural arteries.

The veins α. α. α. α are attended by branches of thoſe arteries, which together with them wind round the heads of the ſhort and long adductors of the thighs and the graciles, and run up towards the pubis upon the fore part of the graciles.

The veins ϐ. ϐ. ϐ are likewiſe attended by arteries. But in the right thigh the veins are ſingle, running along with the arteries; whereas in the left they are double, receiving the artery betwixt them. The branches too of the veins going to the great adductors of the thighs, are likewiſe attended by branches of arteries going to the ſame muſcles.

35. 35 The crural arteries, attending the crural veins ϑ. ϑ.

36. 36 The roots of the epigaſtric arteries.

37 This artery is the ſame with 39 Fig. 1. and here it runs down in the middle between two branches of the vein ϛ.

38 This artery is the ſame with 40 Fig. 1. and here it is accompanied by the ſingle vein ȣ. Thoſe ſmaller branches which attend the larger ones in the upper part of the left leg, belong to this artery.

FIGURE III.

This figure ſhews the ſubcutaneous veins and arteries, ſome of which emerge from the bodies of the muſcles, others between them, and others run upon the fore part of them. Moſt part of the veins have no arteries accompanying them, and ſome are attended with arteries which are ſmaller than the veins. Theſe laſt frequently join one another, and their different courſe is ſhewn upon the two ſides; and which is ſufficiently conſpicuous in the figure. But although we can eaſily tell in a great many of them, from what branches the particular veins and arteries ariſe, yet there are numbers of them where that does not ſo plainly appear; and as it would be but of little ſervice if it was explained, I have not attempted it.

a a The temporal muſcles.
b The zygoma.
c The maſſeter.
d. d The occipitales.
e. e The ſternomaſtoidei.
f. f The places of the complexi, the ſplenii of the head, and the levators of the ſcapulæ.
g. g The cucullares.
h. h The infraſpinati.
i. i The teretes minores.
k. k The teretes majores.
l. l The latiſſimi dorſi.
m. m. &c. The ſpines of the vertebræ.
n. n The external oblique muſcles of the abdomen.
o. o The internal oblique muſcles of the abdomen.
p. p The ſpines of the oſſa ilia.
q. q The glutei magni.
r The external ſphincter ani.
s. s The graciles.
t. t The great adductors of the thighs.
u. u The ſemimembranoſi.
v. v The ſemitendinoſi.
w. w The bicipites of the legs.
x. x The thicker parts of the tendinous ſheaths of the thighs.
y y. y y The gemelli of the legs.
z. z. z The ſolei.
A. A The peronei longi.
B B. B B The peronei breves.
C. C The long extenſor of the toes.
D The tibialis anticus.
E. E The peronei tertii.
F The long flexor of the toes.
G. G The abductors of the little toes.
H. H The deltoids.
I. I The internal brachials.
K. K The long ſupinators.
L M. L M The tricipites of the arms. The ſhort heads L. L. The long ones M. M.
N. N The palmares longi.
O. O The olecrana.
P. P The leſſer condyles of the humeri.
Q The radialis externus.
R The radialis externus longior.
S The radialis externus brevior.
T. T The common extenſors of the fingers.
V. V The ulnares externi.
W The proper extenſor of the little finger, or at leaſt it's ſituation.
X. X The ulnares interni.
Y The radialis internus.
Z. Γ The long abductor of the thumb. Z it's upper part, Γ it's lower.
Δ The leſſer extenſor of the thumb.
Θ The external ligament of the wriſt.

FIGURE IV.

This figure ſhews the more internal veins and arteries.

a The veins and arteries running upon the perioſteum under the temporal muſcle, theſe are w. w Fig. 1.
b The artery 14 Fig. 1.
c The artery 15 Fig. 1.
d. d The veins s. s Fig 1.
e The vein t Fig. 1.
f Theſe branches anſwer to the branches of the vein d, and of the artery e in the other ſide, and the branch c on this ſide anſwers to the artery c of the left ſide; but they twiſt round the ſplenius, and not round the complexus, when the ſplenius is removed, as in the left ſide.
g A vein and artery, which perforate the ſplenius from within outwards.
h The continuation of the vein w Fig. 1. it's aſcending branches are i. i, which have no arteries accompanying them.
k A continuation of the vein and artery z Fig. 1, the vein runs on to join the vein h in the form of an arch.
l. l Veins which run down under the rhomboid muſcles. m Their conjunction with the dorſal n. n. Of the branches of the vein l, one is attended with an artery, the other is not.
o. o Branches of the ſubclavian arteries, which accompany the veins l. l.
p. p Branches of the vein k, running upon the ſupraſpinati muſcles.
q A branch of the ſubclavian artery, joining itſelf with the vein p.
r A branch of the vein k running under the ſupraſpinatus muſcle. There is a branch on the right ſide which anſwers to it.
s Branches of a vein and artery which run backwards by the lunated notch of the ſcapula, at the root of the proceſſus coracoideus, diſtributed under the ſupraſpinatus muſcle.

t. t Branches of the axillary veins and arteries, from which ariſe the branches u. u, giving off v. v to the internal ſide of the deltoid muſcles, w. w to the internal ſides of the long heads of the tricipetes brachiorum: and x. x which join in with the branches δ. δ.

y. y Branches of the ſame veins and arteries t. t, giving off z. z. z which run under the teretes minores muſcles, and afterwards perforate the infraſpinati, diſtributing branches between them and the ſcapulæ, and likewiſe to the infraſpinati internally: α to the teres minor; β chiefly along the ſerratus magnus externally; to which they give off branches.

γ. γ The *axillary* veins of Euſtachius, which are called the baſilic.

δ. δ Branches of the *axillary* veins, which being conjoined with the veins x. x, and then with their attendant arteries, form the branches ε. ε, aſcending under the deltoid muſcles; ζ. ζ to the long heads of the tricipites muſcles of the arms; η. η between the ſhort heads of the tricipites muſcles and the brachiæi externi, running towards the fore-arm; θ. θ to the long heads of the ſame tricipites muſcles.

ι. ι Branches of the axillary veins, which join themſelves with the veins θ. θ.

κ The *vena axillaris profunda* of Euſtachius. This is η Fig. 2.

λ The *vena axillaris externa* of Euſt. This is β Fig. 2.

μ. μ The veins and arteries τ. τ Fig. 2. running out to the external part of the fore-arms, between the ſhort ſupinators and long abductors of the thumbs. Their various courſes are repreſented in the two fore-arms. In the left they give off aſcending branches, but not in the right. In the left the deſcending branch of the vein immediately becomes *double*, and *betwixt theſe two branches the artery runs down*, according to Euſtachius, who ſays that this ſometimes happens, vid. Tab. 2. Fig. 19. and 20. In the right the vein is ſingle, attended with the artery. In the left they run further down toward the hand.

ν The vein and artery υ Fig. 2. going to the back part of the wriſt.

ξ. ο. π. ϱ. σ. ϛ. ς. τ. υ. φ. χ. ψ. ω. Γ. Δ. Θ. Λ. Ξ. Π. Σ. Φ. Ψ. Ω Branches of the intercoſtal and lumbar veins and arteries, making their way through the muſcles, &c. to run upon the back.

A. A Branches of the hypogaſtric veins and arteries X. X Fig. 2. going out to the nates by the origins of the pyriform muſcles, between the os ſacrum and iſchia. There is a variety ſhewn in the two ſides, both as to the branches, and this other circumſtance, viz. that on the right ſide the vein immediately ſplits into two, ſending down a branch on each ſide of the artery.

B A vein ariſing from the branches of the hypogaſtric, going out between the os iſchium and ſacrum, and running through between the lower of the gemelli and the quadratus femoris, without any artery attending it. It joins itſelf at C with the vein G, a branch of the crural.

D. D Branches of the crural veins and arteries, ariſing from them immediately below the groins, and then perforating the muſcles, &c. backwards. Here their various diſtributions upon the two ſides appear. Upon the left ſide a branch of the vein E joins itſelf with a branch of the vein a, and on the right ſide the branch F unites with the vein G.

G. G Branches of the crural veins and arteries, which perforate the great adductors of the thighs backwards. Their various diſtributions upon the two thighs likewiſe appear; amongſt others the trunk of the right vein immediately divides into two, a branch running down on each ſide of the artery. The branches which they diſtribute and give off to the muſcles, are ſufficiently conſpicuous.

H The vein A, and the artery G, before they perforate the great adductor of the thigh, run down very large under the end of that muſcle. Their branches are the vein and artery H, perforating the ſame adductor at the ſhort head of the biceps of the leg.

I. I Veins and arteries, branches of the crurals, joining themſelves in with the branches G. G.

K. K The crural veins, attended by

L. L The crural arteries.

M. M Branches of the crural veins and arteries, joining themſelves to the branches G. G.

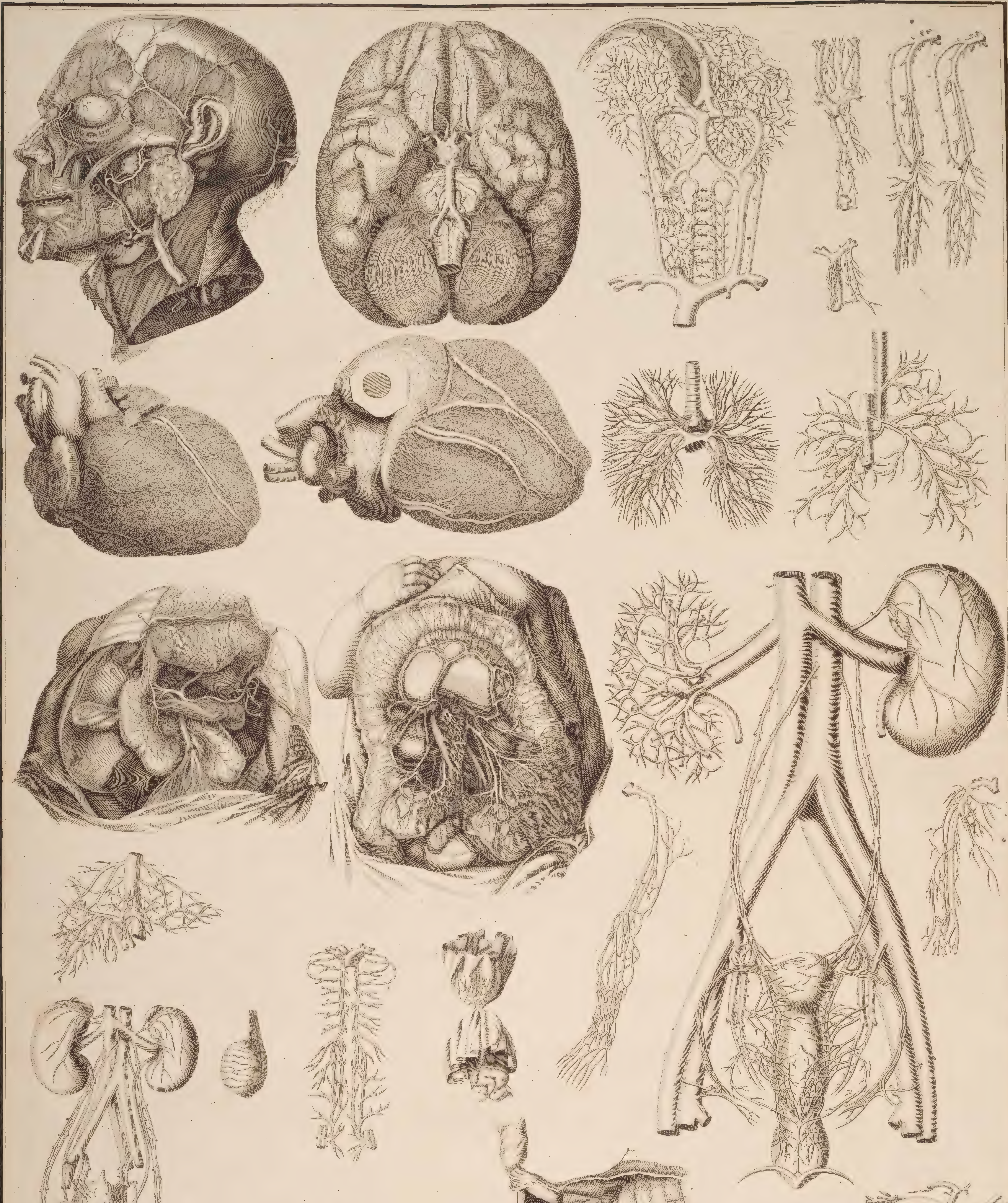
N. N Branches of the crural veins and arteries, which in the upper part of each leg, paſs through between the tibiæ and fibulæ from behind forwards, where the veins make ɕ and ȣ Fig. 2. and the arteries 37. 38 of the ſame.

O. O The fibular veins and arteries. Their branches and various diſtributions appear upon the two legs. Amongſt other differences, in the right leg the vein divides immediately into two branches, one of which runs down upon each ſide of the artery; whereas the left is ſingle, except that near it's origin it gives off a branch which attends the artery, but diſappears about the middle of the thigh.

P. P The tibial veins and arteries. Their branches, together with their various diſtributions upon the two legs, are ſufficiently conſpicuous. The left vein is ſingle, but the right immediately divides into two, accompanying one artery, which runs down betwixt them.

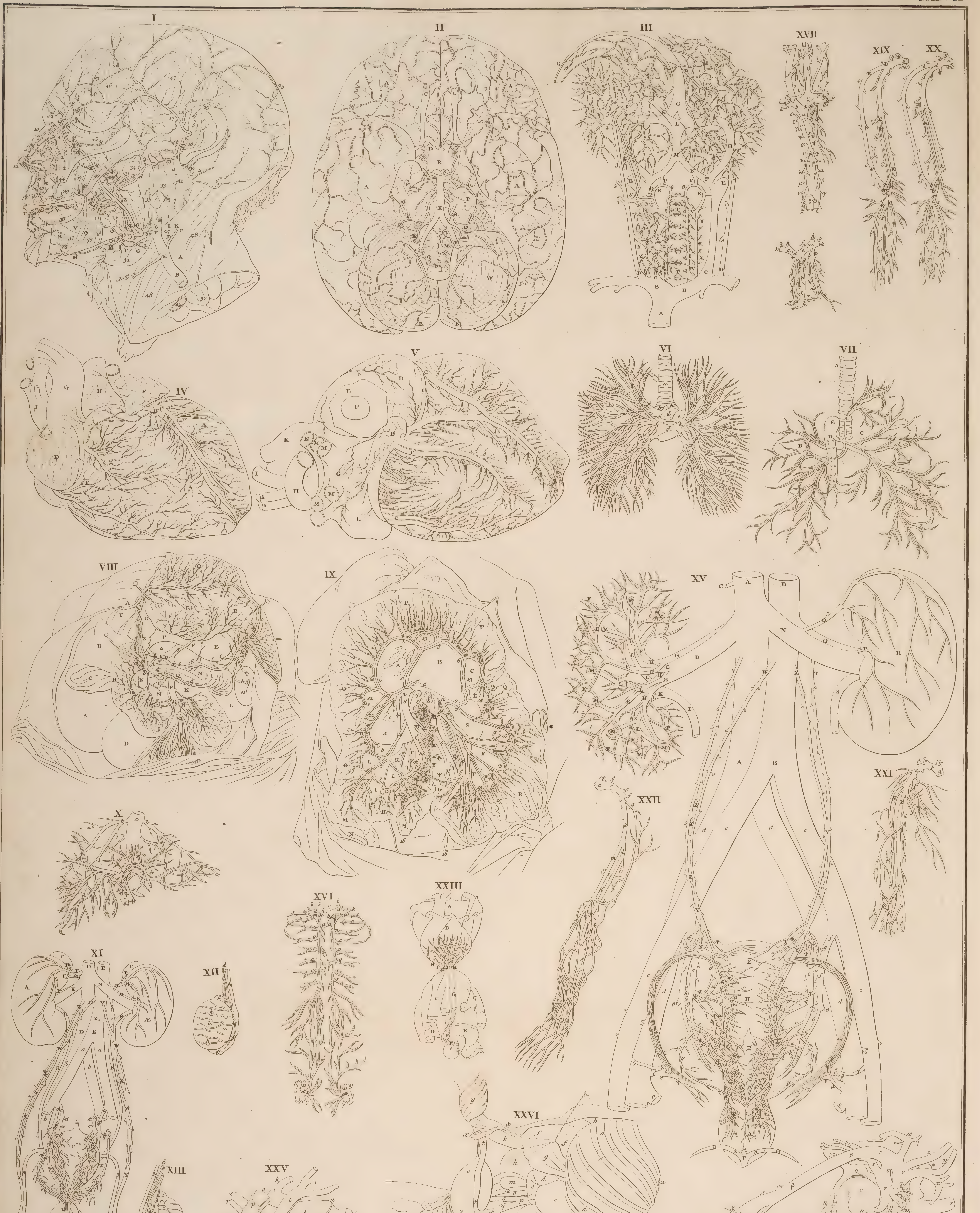
Q Branches of the vein and artery ȣ Fig. 2.

TAB. II.



J. S. Müller Sculp.

Impensis J. & P. Knapton Londini, 1750.



I. S. Müller Sculp.

Impensis I. & P. Knapton Londini, 1750.

A

COMPLEAT SYSTEM

OF THE

BLOOD-VESSELS AND NERVES.

TABLE II.

THIS table repreſents a ſyſtem of the blood-veſſels of the particular parts and viſcera, including thoſe peculiar to the fœtus, and the parts of generation in both ſexes. The figures are chiefly taken from Euſtachius, Ruyſch, Haller, and Trew.

FIGURE I.

This figure, repreſenting the arteries of the face, is taken from Dr Haller, Icon. Anatomic. part. corp. hum. faſcic. III. *Tab.* 2.

A The common trunk of the carotid.

B The common jugular vein.

C The internal carotid.

D The external carotid.

E The ſuperior thyroid artery.

F The lingual artery, covered by the veins and the ceratogloſſus muſcle.

G The labial artery, the beginning of which is likewiſe covered.

Γ The pterigoidal branches.

Θ A branch going to the dorſum linguæ.

H The trunk of the external carotid, at the parotis.

I The occipital artery, covered by the parotis and the muſcles.

K The artery of the pharynx which is here hid.

L A ſuperficial branch of the labial artery.

M The ſubmental artery.

N Superficial branches of the labial.

O The muſcular artery of the lower lip.

P It's anaſtomoſis with the lower maxillary.

Q The lower maxillary, covered with muſcles, and coming out at the foramen.

R Branches of it going to the quadratum genæ, and to the lower lip.

S It's anaſtomoſis with the ſubmental.

T Anaſtomoſes with the coronary artery of the lower lip.

V Anaſtomoſes of a branch of the inferior labial artery with the coronary of the lower lip.

Y The coronary of the lower lip.

Z A branch of it going to the maſſeter and buccinator muſcles.

a A branch of it going to the ſkin.

b A branch going to the muſculus triangularis, and the angle of the lips.

c A branch of the external carotid, going to the parotid gland.

d The tranſverſe artery of the face, ariſing from the temporal.

e A branch going to the temporal muſcle, and the orbicularis of the eye-lid.

f The alveolar branch, accompanying the buccinator hardly conſpicuous.

g A branch going to the zygomatic muſcle, the upper part of the parotis, the lower ſide of the orbicular muſcle, and to the ſkin.

h Branches going to the buccinator.

i Branches going to the angles of the lips.

k. k The coronary artery of the upper lip.

l The lateral naſal artery produced from it.

m It's anaſtomoſis with the ophthalmic.

n Another naſal artery, ſending off two branches to the margin of the bone of the noſe.

o Another branch ſent off to the ſeptum narium.

p The coronary artery of the upper lip on the right ſide, and it's anaſtomoſis with that on the left.

q A branch going to the zygomatic muſcle, and the root of the jugum.

t A deep-ſeated branch, anaſtomoſing at one part with the one that goes to the buccinator muſcle, and at another with the infraorbital artery.

u That anaſtomoſis.

x The ſituation of the trunk of the infraorbital artery, covered with muſcles.

y Anaſtomoſes of a branch of the infraorbital with a branch of the temporal.

z The anaſtomoſis of the infraorbital with the coronary of the lips.

1 A branch going to the root of the noſe.

2 An anaſtomoſis of the infraorbital with the ophthalmic.

3 Another anaſtomoſis.

γ The loweſt branch of it going to the levator communis muſcle, and communicating with f.

4 A branch of the ophthalmic artery, running down to the levator muſcle.

5 Another going to the alæ of the noſe.

6 The trunk of the ophthalmic artery, coming out of the orbit.

7 A branch of it going to the lower eye-lid.

8 Another, going to the upper eye-lid, the corrugator muſcle, &c.

9 A third, going to the ſpace between the eye-brows.

10 The cutaneous branch of the ophthalmic.

11 One running upon the dorſum or ſpine of the noſe.

12 Anaſtomoſes of it with the naſal branches ſent up from the coronary artery of the lips.

Δ The poſterior auricular artery.

13 A branch ſent off from the temporal artery to the maſſeter muſcle, and the parotid gland.

14 A deeper ſeated branch of the temporal artery.

15 The trunk of the temporal artery.

16 The anterior auricular artery.

17 The interior temporal.

18. 19 It's anaſtomoſes with branches of the ophthalmic.

20. 21 Branches going to the forehead, temples, and ſinciput.

22 The exterior temporal.

23 The ſuperior auricular.

24 The ſincipital arteries.

25 Their anaſtomoſis with the occipital.

26 The facial artery.

27 The temporal vein.

28 The facial vein, climbing upwards on the face.

29 The frontal vein.

Λ The ophthalmic vein.

30 Steno's duct.

31 The duct of the acceſſory gland.

32 The maxillary gland.

33 The parotid.

34 The ſocia parotidis.

35 The maſſeter muſcle.

36 The triangularis.

37 The quadratus.

38 The inferior orbicular muſcle.

39 The ſuperior.

40 The naſal of the upper lip.

41 The buccinator.

42 The zygomaticus.

43 The common levator of the lips.

44 The common levator of the upper lip, and of the ala naſi.

45 The orbicular muſcle of the eye-lid.

46 The frontal muſcle.

47 The temporal.

48 The maſtoid.

49 A ſection of the aſpera arteria.

50 The medulla ſpinalis.

51. 52 The exact middle of each lip.

FIGURE II.

This figure is taken from Ruyſch, Epiſt. Anat. Tab. 13. *It repreſents the brain of a boy about ten years old, inverted, and taken out of the ſkull; together with the courſe of the arteries diſperſed through the pia mater, and the origin of the nerves ariſing from the medulla oblongata.*

A. A The ſurface of the inverted brain divided into four lobes, together with

B The cerebellum.

C The olfactory nerves with their little arteries and fibrils, which perforate the os cribriforme.

D The optic nerves, covered with the pia mater, upon which a great many ſmall arteries creep.

E The third pair of nerves.

F The fourth pair, or pathetic.

G The fifth pair.

H The ſixth pair.

I The ſeventh pair, or the auditory.

K The eighth, or par vagum.

L The acceſſory nerves.

M The ninth pair, ariſing in the ſame manner as the other nerves which are produced from the medulla ſpinalis, viz. by very ſlender filaments or roots, which I have never ſeen repreſented in any other figure of the brain.

N The tenth pair, ariſing in the ſame manner as the former.

O A portion of the plexus choroides, riſing luxuriant above the ſurface of the brain.

P The annular protuberance, under which creeps the medulla oblongata, covered with the pia mater, and ſupplied with innumerable arteries.

Q The extremity of the medulla oblongata.

R The infundibulum with it's little arteries, under which are

S Two protuberances of the medulla oblongata behind the infundibulum, falſely called glands.

T The rete mirabile, produced from the carotid on each ſide.

V The carotid artery.

W The lamella interrupted.

X An artery called the cervical, by Dr Vieuſſens.

Y The vertebral arteries.

Z Prominences of the cerebellum, which from their figure might be called vermiform proceſſes, as juſtly as the true proceſſus vermiformes.

a The cerebellum covered with the pia mater, concerning which I muſt obſerve. Firſt, that the extremities of the ſmall arteries are much more numerous than I could poſſibly here repreſent them. Secondly, that the ſubdiviſions of the cortical ſubſtance could not be here repreſented, the brain not being previouſly prepared for it.

b The ſpinal artery, which has not always the ſame origin in every ſubject. It ſeldom ariſes preciſely from the bifurcation of the cervical artery, but very frequently from the ſides of the vertebral arteries, whether it paſſes out only at one ſide, or at both.

FIGURE III.

Though this figure is not quite ſo elegant as I could wiſh, yet it gives the beſt repreſentation of the veins and ſinuſes of the brain, of any that I know hitherto publiſhed. It is taken from Tab. 12. of the Cephalatomie of J. B---, Surgeon at Avignon, publiſhed there in the year 1748.

A The trunk of the vena cava, cut off near the heart.

B The ſubclavian veins.

C The internal jugular veins.

D The external jugulars.

E The jugular ſac, or the beginning of that vein.

F The communication of the jugular vein with the lateral ſinus.

G The ſuperior longitudinal ſinus.

H The lateral ſinus.

I The inferior longitudinal ſinus.

K The torcular ſinus of Herophilus.

L The joining of the ſuperior longitudinal ſinus, the lateral ones, the torcular of Herophilus, and the beginning of the poſterior occipital ſinus.

M The poſterior occipital ſinus.

N The inferior occipital ſinus.

O The veins which terminate in the longitudinal ſinus.

P The communication of the inferior occipital ſinus with the vertebral ſinuſes.

Q The communication of the vertebral ſinus with the jugular vein.

R The vertebral vein, which paſſes through the foramina in the tranſverſe apophyſes of the vertebræ of the neck.

S The beginning of the vertebral ſinuſes.

T The poſterior arcade, formed by the vertebral ſinuſes.

V The communication of the vertebral ſinuſes with the vertebral veins.

X The veins which bring the blood from the neighbouring parts to the vertebral veins.

Y The trunk of the maxillary vein.

Z The different ramifications of the maxillary vein, which go to diſcharge their blood into the external jugular.

& The internal maxillary vein, which returns the blood from the angular vein.

1 The occipital vein.

2 The auricular vein.

3 The trunk of the temporal vein.

4 The anterior branch of the temporal vein.

5 The middle branch of the temporal vein.

6 The poſterior branch of the ſame vein.

FIGURE IV.

This, together with the following figure, it taken from Ruyſch, Theſaur. Anat. 4. Tab. 3. They repreſent the human heart filled with red wax, ſo as to ſhew the true courſe of the veſſels, and the true figure of the heart and auricles.

A The human heart ſeen in it's convex part, and in it's natural ſituation.

B Branches of the coronary vein.

C Branches of the coronary artery.

D The right auricle.

E Branches of veins, going from the right auricle.

F The left auricle.

G The trunk of the aorta.

H The trunk of the pulmonary artery.

I The aſcending trunk of the vena cava.

FIGURE V.

A A view of the plain ſurface of the ſame human heart, which reſts upon the diaphragm.

B The trunk of the vena cava with it's branches.

C. C. C. C Branches of the coronary artery, whoſe extremities, though extremely minute, are nevertheleſs filled with wax.

D A portion of the right auricle (for the whole of it cannot be ſeen in this poſition) through which innumerable blood-veſſels are diſperſed.

E A remaining portion of the diaphragm.

F The deſcending trunk of the vena cava, perforating the diaphragm.

G A membranous bag, which makes as it were the baſis of the pulmonary vein, and a common cavity with the left auricle.

H The trunk of the aorta, from the back part of which three branches riſe upwards.

I. I. I Three branches of the aorta, riſing upwards.

K The aſcending trunk of the vena cava.

L A portion of the left auricle.

M. M Branches of the pulmonary vein.

N One of the branches of the pulmonary artery; the other branches hardly appear when the heart is in this poſition.

FIGURE VI.

This figure, which repreſents a fore view of the whole pulmonary ſyſtem, viz. *of the aſpera arteria, and the pulmonary veins and arteries, is taken from Euſt. Tab. 27. Fig. 13.*

a The aſpera arteria, cut off near the larynx.

b. b The two bronchia going to the lungs.

c. c. &c. Branches of the bronchia, diſtributed through the lungs.

d The pulmonary artery, cut off near the heart.

e. e Two branches, into which the pulmonary artery divides itſelf, going towards the lungs.

f. f. &c. Branches of the pulmonary artery, diſtributed through the lungs.

g The ſinus of the pulmonary veins, cut off near the heart.

h. i. k. l Four pulmonary veins, ariſing from that ſinus, and diſtributing their branches every where through the lungs.

FIGURE VII.

This figure is taken from Ruyſch, Obſervat. Anat. Fig. 9. and repreſents the aſpera arteria of a calf, on the back part, freed from the ſubſtance of the lungs, and the pulmonary vein and artery, with the aorta deſcendens cut away from the heart, and the bronchial artery.

A The aſpera arteria of a calf, viewed on the back part, and the larynx cut away.

B The right branch.

C The left.

D The bronchial artery, ſmall branches of which accompany the bronchia to their extremities.

E The back part of the deſcending aorta, from which the intercoſtal arteries ariſe, cut away from the heart.

. . . . The ſmall trunks of the intercoſtals, lopped off.

F The uppermoſt branch, which I have never ſeen in any animals except cows and calves.

FIGURE VIII.

This figure repreſents a view of the whole celiac artery, and is taken from Haller, Faſcic. Anat. 2. celiac. Tab. 2.

A. B The right lobe of the liver turned back.

Γ The left lobe.

Δ The little lobe of Spigelius.

C The gall-bladder.

D The right kidney.

E The ſtomach in ſuch a poſition, as to have both it's orifices turned backwards, almoſt in the ſame manner as when it is quite full.

F The cardia.

Θ A portion of the omentum.

G The pylorus.

H The deſcending portion of the duodenum.

I That portion of the duodenum which runs acroſs the ſpine, behind the meſenteric veſſels.
K The termination of the duodenum in the jejunum.
L The left kidney.
M The ſpleen in it's natural ſituation.
N The anterior ſurface of the pancreas.
O The poſterior ſurface turned outwards.
P The meſenteric artery paſſing before the duodenum, and behind the pancreas.
Q The middle artery of the colon.
R The trunk of the cæliac artery.
S The upper coronary artery.
Φ. Φ The meſenteric branches of the vena portarum.
T The trunk of the vena portarum in it's courſe to the liver.
U The right branch of the cæliac artery.
X It's hepatic trunk.
Y The duodenal.
Z The right gaſtro-epiploic artery, running along by the great curvature of the ſtomach.
a. a The two inferior pyloric arteries.
b The great pancreatic-duodenal artery.
c Branches going to the duodenum.
d The pancreatic artery, running a long way tranſverſely towards the left.
e The ſplenic artery.
f It's pancreatic branches.
g The poſterior gaſtric branches.
h. h The ſplenic branches.
i The left gaſtro-epiploic artery.
k It's anaſtomoſes with the right.
l The vaſa brevia.

FIGURE IX.

This figure, likewiſe taken from Haller, Faſcic. Anat. 3. art. meſenter. gives a very juſt and beautiful repreſentation of the courſe of the meſenteric arteries.

A. B. C The whole middle part of the meſocolon turned up, ſo that it's origin may appear.
A That part of it which reſpects the liver, and
B The ſtomach, and
C The ſpleen.
D The right portion of the meſocolon, and
E The left, going between the ſpleen and the kidney, where it is very narrow.
F. F The large left iliac flexure of the meſocolon, the membranes between the trunks of the veſſels moſtly cut away, in order to expoſe the viſcera with which it is connected.
G A part of it running down to the rectum.
H A part of the ilium.
I The end of the meſentery, which is continued on with the meſocolon of the right ſide.
K. K The right portion of the meſentery, the membranes between moſtly cut away, in order that the contiguity of the veſſels below may appear.
L. L The right portion of the meſentery, diſſected in the ſame manner.
M The cæcum.
N The appendix cæci.
O The right portion of the colon.
P It's tranſverſe portion.
Q The left portion of it.
R The left iliac flexure of the colon.
S The left kidney.
Θ The ſpermatic veſſels of the left ſide.
R The trunk of the aorta.
S The common trunk of the iliac artery.
T The external iliac artery.
Φ The laſt vertebra of the loins.
Ψ The pelvis, or os ſacrum.
V The internal iliac artery.
X The iliac vein.
Y The arteria ſacra.
Z The beginning of the jejunum, emerging from under the meſocolon which lies acroſs it.
a The inferior tranſverſe portion of the duodenum.
b A part of the right kidney.
c The right portion or head of the pancreas.
d It's tranſverſe portion, lying acroſs behind the meſocolon.
e The trunk of the vena portarum.
f The left coronary vein of the ſtomach.
g The meſenteric vein.
h The vena gaſtro colica.
i The right vena colica.
k The vena ileocolica.
l The meſenteric vein, bended in the form of an arch.
m Branches of the meſenteric vein cut off.
n The left vena colica, from which the internal hæmorrhoidal is ſent down.
o The aſcending branch of it.
p The deſcending.
q The ſuperior meſenteric artery.
r The middle artery of the colon.
s A branch going to the middle of the meſocolon lying acroſs the back.
t It's right branch joining with the right artery of the colon.
u The right artery of the colon making an arch with the former.
x The arteria ileocolica.
y The arch which it makes with the right artery of the colon.
z A branch of it ſent to the cæcum.
1 It's arch and anaſtomoſes with the meſenteric artery.
2 Branches of the ſuperior meſenteric artery going to the ſmall inteſtines.
3 The left branch of the middle artery of the colon.
4 The left *arteria colica*, or inferior meſenteric.
5 It's aſcending branch.
3. 6 It's conjunction with the middle artery of the colon, or *the great meſenteric arch.*
7 Branches of the ſame going to the colon on the left ſide.
8 The middle trunk of the left artery of the colon.
9 It's arch with the aſcending branch of the artery of the meſocolon.
10 The inferior trunk of the left artery of the colon, or *the internal hæmorrhoidal artery.*
11 Its arch with the former.
12 Double arches of the right artery of the colon.
13 Similar arches in the middle artery of the colon.
14 The ſame in the left.
15 Rectilineal branches running upon the inteſtines from the ſecond arches.
16 The epigaſtric arteries.
17 The ſpermatic veſſels.

FIGURE X.

This figure repreſents the veſſels of the liver and gall-bladder, and is taken from Euſtachius, Tab. 27. Fig. 1.

a. a The vena cava inferior, cut off both above and below the liver.
b. b. c. c. c. c The hepatic veins; b. b the larger ones, c. c. c. c the leſſer.
d The root of the ſplenic vein.
e The root of the meſenteric.
f The vena portarum.
g. h. i Three branches, into which the vena portarum divides itſelf, which diſtribute their branches through the whole ſubſtance of the liver.
k A branch of the vena portarum going to the gall-bladder.
l The hepatic artery cut off. It divides itſelf into two branches, which join themſelves with the branches g. i of the vena portarum, and diſtribute their branches together with theſe through the liver.
m A branch of the hepatic artery going to the gall-bladder, accompanying the branch k of the vena portarum.
n The ductus choledochus cut off.
o The ductus cyſticus likewiſe cut off.
p The ductus hepaticus.
q. r. s Three branches into which the ductus hepaticus divides itſelf, which accompany the three branches g. h. i of the vena portarum, and moſt part of the other branches which thoſe diſtribute through the liver.
t. v. v. v. w Of theſe there can nothing certain be ſaid.

FIGURE XI.

This figure, which repreſents the blood-veſſels of the kidneys, the renes ſuccenturiati, bladder, penis, and teſticles, is taken from Euſtachius, Tab. 12. Fig. 1.

A *The right kidney is larger than* Æ *the left. On the upper part they are both almoſt equally high, but the left is a little higher, and the right on the lower part reaches farther down than the left, upon account of it's larger ſize; wherefore the left may be ſaid to be higher than the right.*
B B. B B *The ureters.*
C. C *The right glandula renalis, in it's form, figure, and ſubſtance, reſembling the kidney, is larger than the left. The left renal gland is like the right, but not ſo large.*
D. D *The trunk of the vena cava.*
E. E *A part of the aorta.*
F *A ſmall vein which ariſes from the right ſide of the vena cava above the emulgent, and is diſtributed to the fat upon the right kidney.*
G *A ſmall vein, ariſing either from the cava, or from the upper part of the right emulgent; of which the branches* H *are beſtowed upon the right glandula renalis, and the branches* I *upon the upper part of the ſubſtance of the kidney.*
K *The right emulgent vein, which is lower, ſhorter, and more oblique than the left.*

Both in men and in monkeys there is commonly but one vein and one artery beſtowed upon each kidney. De Ren. Cap. XV.

The veins and arteries of the kidneys for the moſt part do not divide into branches, 'till after they have entered the cavity of the kidneys. De Ren. Cap. XVII.

L *The right emulgent artery.*
M *The left emulgent artery.*

N *The left emulgent vein, riſing higher up, longer, and leſs oblique than the right.*

The left emulgent vein ſends off branches both above and below. Above, for the moſt part, about the middle of it's courſe, it ſends off the branch O, *and near it's inſertion into the kidney, the other branch* R. *The one* O *ſends off branches to the upper part of the fat upon the kidney, as far as the middle of the kidney* Q, *and the renal gland* P, *as alſo to the diapragm itſelf*; (Θ Tab. 1. Fig. 1.) *which laſt are ſometimes very conſiderable, and anaſtomoſe beautifully with the veins of the diaphragm. But the poſterior and upper branch* R *is diſtributed to the lower part of the fat upon the kidney. The emulgent vein below, on the left ſide, in the middle of it's courſe, produces the ſpermatic vein* S; *and the right emulgent ſometimes does the ſame, but very ſeldom. But it is ſtill ſeldomer to be obſerved in both together*; *and this is the diſtribution of theſe veſſels, which moſt frequently occurs.* De Ren. Cap. XVI.

O *A ſmall vein ariſing from the upper ſide of the left emulgent, in the middle of it's courſe, and terminating partly in* P, *ſent to the left glandula renalis, and partly in* Q, *which is beſtowed upon the upper part of the fat upon the kidney.*

R *Another ſmall vein ariſing from the upper ſide of the left emulgent near the kidney, and diſtributed to the lower portion of the fat upon the kidney.*

S *The left ſpermatic vein, produced from the emulgent.*

T *The right ſpermatic vein.*

U. V *The ſpermatic arteries.*

W. W. W Are theſe the ſpermatic veſſels connected together by the cellular membrane?

X. X. X. X Conjunctions of the ſpermatic arteries and veins.

Concerning thoſe branches which the ſpermatic arteries and veins ſend off in their courſe, before they reach the teſticles, ſee Ξ and 30, Tab. 1. Fig. 1.

Y. Y The ſpermatic chords, where the ſpermatic veſſels are wrapped up in the cellular membrane.

Z *The inferior meſenteric artery.*

a. a The iliac arteries.

b. b. b The iliac veins.

c. c The hypogaſtric veins.

d. d: e. e The roots of the branches of the hypogaſtric veins, which make A. A Tab. 1. Fig. 1.

f. f Veins, the ſame with X Tab. 1. Fig. 2.

g. g Veins ariſing from the hypogaſtric, which run upon the bladder.

h Another vein ariſing from the left hypogaſtric, which likewiſe runs upon the bladder, and frequently unites it's branches with thoſe of the former one g. In place of this on the right ſide is

i A vein, which ariſing from the right iliac below the hypogaſtric, runs upon the right ſide of the bladder, joining itſelf likewiſe with the vein g.

k A conſiderable vein, compoſed of branches of the veins g. g. h. i united together before the proſtate.

l. m Veins ariſing from the hypogaſtrics, which unite with the vein k at the root of the penis. From this union is compoſed

n An azygous vein, which runs all along the back of the penis.

o. o The hypogaſtric arteries.

p. p The roots of umbilical arteries.

q. q Branches of the hypogaſtric arteries, which accompany the veins f. f: The ſame with thoſe which accompany the veins X Fig. 2.

r. r: s. s Branches of the ſame hypogaſtric arteries, which run upon the bladder together with the veins g. g. h. i, and are united together by means of intermediate branches.

t u. t u Arteries which ariſe from the hypogaſtrics, and run upon the fore-part of the root of the penis; and afterwards u. u accompany the vein n upon the back of the penis.

v The bladder.

w The ligament into which the urachus is changed.

x. x The proſtate.

y. y The head of the penis.

z The bulb of the urethra.

α The penis.

β. β The vaſa deferentia.

γ. γ The epididymes.

δ. δ The teſticles.

FIGURE XII.

This repreſents a view of the fore-part of the right teſticle, and is taken from Euſtachius, Tab. 12. *Fig.* 2.

a The teſticle.

b The vas deferens.

c The epididymis.

d One of theſe appears to be the ſpermatic vein, and the other the artery.

e. f. g Branches running upon the vas deferens.

f A branch, which makes f Fig. 13.

g A branch, which makes g Fig. 13.

h. h. h Branches, which run upon the tunica albuginea of the teſticle.

FIGURE XIII.

This repreſents a view of the back part of the ſame right teſticle, and is taken from Euſtachius, Tab. 12. *Fig.* 5.

a The teſticle.

b The vas deferens.

c. c. c The epididymis.

d One of theſe veſſels appears to be the ſpermatic vein, and the other the artery.

e. f. g Branches running upon the vas deferens, of which

f Makes f Fig. 12.

g Makes g of the ſame Fig. 12.

h. h Branches running upon the epididymis.

i. i. i. i Branches running upon the tunica albuginea of the teſticle.

FIGURE XIV.

This repreſents the teſticle with the tunica albuginea taken away. It is taken from Euſtachius, Tab. 12. *Fig.* 6.

A The pulp of the teſticle laid bare. The lines with which it is marked, ſeem to point out a certain diviſion of it into different portions.

B. C The tunica albuginea. B It's external ſurface. C The internal, which is hollow, and contains the pulp of the teſticle.

D. D. D Veſſels, which go from the tunica albuginea to the ſubſtance of the teſticle.

FIGURE XV.

This figure on the right ſide, repreſents the branches of the vein, artery, and ureter, diſtributed through the kidney; and on the left, the kidney itſelf, with the emulgent vein and artery, and the branches of the emulgent vein. It likewiſe repreſents the diſtribution of the blood-veſſels on the bladder, and the parts of generation in women. It is taken from Euſtachius, Tab. XIII.

A. A The inferior vena cava.

B. B The aorta.

C The root of the vein ω Tab. 1. Fig. 1.

D The right emulgent vein. *The emulgent vein, after it has entered the kidney, divides itſelf into four or five branches* E. E. E. E. E; *which being again ſubdivided into ſeveral others, are variouſly diſtributed through the ſubſtance of the kidney*; *and being blended together, are united at* F. F. F. F. &c. *and at laſt terminate in very ſubtile and almoſt inviſible ramifications. For if you ſqueeze a kidney that has been cut, there will ooze out a great many drops of blood, diſcovering veſſels to be diſperſed through the ſubſtance of the kidney, which are inviſible to the ſight.*

G. H. H. H. H *The emulgent artery, which running along with the vein of the ſame name, is diſtributed in the ſame manner with it.*

The branches of the three ſyſtems of veſſels appear, the whole ſubſtance of the kidney being deſtroyed.

It is uſual both in men and in monkeys, for only one vein and one artery to be diſtributed to each kidney. De Ren. Cap. XV.

The veins and arteries of the kidneys for the moſt part are not divided into branches, 'till after they have entered the cavity of the kidneys. De Ren. Cap. XVII.

After both theſe veſſels, running obliquely towards the kidney of the ſame ſide, have entered it's cavity, as I have ſaid above, each of them immediately divides into ſeveral branches, for the moſt part into four, and is diſtributed in a ſingular and ſurpriſing manner, but very different from what other authors have deſcribed, &c. - - - they reach almoſt the middle of the length of the kidney, where their branches unite together ſeveral different ways; *and being again divided into other ſmaller twigs, they are diſperſed in the form of ſmall capillary veſſels through the ſubſtance of the liver, and at laſt diſappear.* De Ren. Cap. XVII.

The ureter (I mean in men, and not in dogs) as ſoon as it enters the kidney K, *becomes a little larger* L L. L L. L L, *and is divided into three principal branches like the veins and arteries. Theſe branches are diſtributed to the upper, lower, and middle part of the kidney*; *and the upper and lower ones are each of them divided into three other branches, but the middle one only into two. Theſe branches are ſhort and thick, and rather broader at their extremities, in the form of a cup, embracing the mammillæ of the kidneys, to which they adhere by way of a looſe cover. It frequently happens too, that the greateſt part of theſe branches are perforated in the middle, and there admit the mammillæ in the ſame manner as at their extremities. This is the diſtribution which moſt frequently occurs of the ureter through the kidneys.* De Ren. Cap. XIX.

N *The left emulgent vein, riſing higher up, longer, and leſs oblique than the right.*

The vein which goes to the left kidney, ſends off branches both above and below. Above, for the moſt part it ſends off O *in the middle of it's courſe, and* P *near it's entry into the kidney. The firſt,* viz. O, *gives off lateral branches to the upper part of the fatty membrane, as far as the middle of the kidney lengthwiſe, as alſo to the glandula renalis* (P Fig. 11.) *and likewiſe to the diaghragm* (Θ Tab. 1. Fig. 1.) *Theſe branches are ſometimes pretty large, and unite very beautifully with the veins of the diaphragm. The other branch* P *is beſtowed upon the lower part of the fatty membrane of the kidney. This ſame left emulgent vein below, in the middle of it's courſe, produces the ſpermatic vein* T, *which is ſometimes, though ſeldom, imitated by the right*; *and it is ſtill more ſeldom that we obſerve this in both. This is the diſtribution of theſe veſſels which moſt frequently occurs.* De Ren. Cap. XVI.

O *A ſmall vein, which ariſes from the upper ſide of the left emulgent in the middle of it's courſe, and is diſtributed* (partly to the diaphragm) *partly to*

the

the left glandula renalis, and partly to the upper portion of the fatty covering of the kidney. It makes Θ Tab. I. Fig. I.

P *A ſmall vein, ariſing from the upper ſide of the left emulgent near the kidney, diſtributed to the lower portion of the fatty covering of the kidney. It makes* Λ Tab. I. Fig. I.

Q *The left emulgent artery.*

R The left kidney.

S *The left ureter.*

T The left ſpermatic vein, ariſing almoſt from the middle of the lower ſide of the left emulgent.

V The right ſpermatic vein, ariſing from the vena cava.

W. X The ſpermatic arteries, ariſing from the fore part of the aorta. Their branches, as well as thoſe of the veins, which are ſent off in their courſe to the uterus, tubæ Fallopianæ, and ovaria, are here cut away. See Ξ and 30, Tab. I. Fig. I.

Y. Y. Y Do theſe point out the conjunctions and connections of the ſpermatic arteries with the veins, by means of little membranes?

Z. Z. Z Intermediate canals, by which the ſpermatic veins are united with the arteries.

a a. a a The ſpermatic veins and arteries running along the uterus and vagina. They ſend off a great many branches belonging to the ovaria, tubæ Fallopianæ, uterus, and vagina. b. b. b Point out the veins united likewiſe with one another.

c c. c c The iliac arteries.

d d. d d The iliac veins.

e. e The hypogaſtric veins.

f f. f f The hypogaſtric arteries.

g The root of the umbilical artery.

h h. i. k: h. i. k Branches of the hypogaſtric arteries, going to the uterus, vagina, and bladder. We find their branches united with one another, as l. l. l. &c. We find them likewiſe united with the trunks of the ſpermatic arteries, as m. m. &c. They are alſo united with a branch of the ſpermatic artery, as n, with a branch of the epigaſtric artery running along the round ligament of the womb to the uterus, as o, and with a branch of the hypogaſtric vein, as p; unleſs there is ſome fault in the engraving.

q. r. s: q. r. s Branches of the hypogaſtric veins, which anſwer to the branches h h. i. k: h. i. k of the arteries, and run along with them to the uterus, vagina, and bladder. We find them likewiſe frequently united together by their branches, as t. t. t. t. &c. as alſo with the trunks of the ſpermatic veins, as u. u. u, and with branches of the ſame veins, as w. w. w.

x The conjunction of the branches of the hypogaſtric veins, which run upon the bladder, at the fore part of the neck of the bladder; together with the branches y. y of the hypogaſtrics. From which conjunction is formed the vein z, running to the clitoris.

α. α Branches of the hypogaſtric veins, and β. β of the arteries, running as far as the nates.

γ. γ The epigaſtric arteries.

δ. δ The epigaſtric veins.

ε A branch of the right epigaſtric vein, which immediately divides into two; one of which, ζ, runs upon the round ligament of the womb to the uterus, and the other, η, goes on to the pubes, with the extremity of that ligament.

θ A branch of the right epigaſtric artery, which accompanying the vein ζ, runs on to the uterus by the round ligament.

ι A branch of the left epigaſtric artery, which divides itſelf into two; one of which, κ, runs on to the uterus by the round ligament, and anſwers to the artery θ of the right ſide; and the other, λ, goes out with the extremity of the ſame ligament to the pubes, having none on the right ſide to which it anſwers.

μ A ſmall vein, which ſoon divides into two, ν and ξ, accompanying the arteries λ and κ to the pubes and uterus. It anſwers to the vein ε of the right ſide, but does not ariſe from the epigaſtric like the other.

ο. ο The vena ſaphena.

Γ The clitoris. Δ. Δ It's crura.

Θ. Θ The erectors of the clitoris.

Λ Part of the vagina, before the extremity of the urethra, terminated by the nymphæ.

Ξ The bladder.

Π. Σ The uterus. Π The neck. Σ The fundus.

Φ. Φ The Fallopian tubes.

Ψ. Ψ The ovaria.

Ω. Ω The round ligaments of the womb.

FIGURE XVI.

This repreſents the ſubclavian veins, and the roots of the ſubclavian arteries, the roots of the jugular and axillary veins, and of the carotid arteries, the mammary veins and arteries, together with the intercoſtals, a ſmall portion of the iliacs, the epigaſtric veins and arteries, and the roots of the venæ ſaphenæ. It is taken from Euſtachius, Tab. 27. Fig. 12.

a The vena cava ſuperior cut off near the heart.

b. b The ſubclavian veins.

c The root of the vein f, Tab. I. Fig. I.

d. d The roots of the internal jugular veins.

e. e The roots of the external jugular veins.

f. f The roots of the *axillary* veins.

g The aorta cut off near the heart.

h The common root of the right ſubclavian and right carotid artery.

i. i The roots of the carotid arteries.

k. k The roots of the ſubclavian arteries.

l. l The mammary veins, which unite with the epigaſtrics. The right divides into two, attending one artery, which runs on between them.

m. m The mammary arteries, accompanying the veins, and in like manner uniting themſelves with the epigaſtric arteries.

n. o. p. q. r. s: n. o. p. q. r. s Branches of the mammary veins, with correſponding branches of the arteries, which join themſelves with the intercoſtals, n. n with the firſt, o. o with the ſecond, &c. They ſend off branches, which run through between the ribs to the breaſt, the roots of which only are here repreſented.

But when the other intercoſtal branches, which ariſe from the vena azygos, *and from which the above mentioned branches are produced, have arrived near the ſternum, then the branches of each vein running ſtreight down under the ſternum, meet with the other branches, and unite with them in ſuch a manner, as each of them reſembles one vein produced from a double origin. And beſides, having perforated the muſcles a little way from the ſternum, they ſend off other remarkable, or at leaſt not obſcure branches, from all the ſpaces between the cartilages, and likewiſe under the ſternum from the muſculi recti abdominis, which running below the ſkin, are variouſly combined and united with others, ariſing from the great external branch of the axillary vein.* De vena ſine pari, antigr. XVIII.

t. t: u. u Two of the upper intercoſtal veins on each ſide, t. t the firſt, u. u the ſecond.

That venal arch, which ariſes from the back part of each trunk of the vena cava in the jugulum, near the origins of the jugular veins, and is reflected under the brachial artery, for the moſt part is divided into two branches, which being diſtributed through the two ſpaces between the upper ribs, unite with thoſe branches of the vein of the ſternum which run between the cartilages. De vena ſine pari, antigr. XV.

v. v: w. w The two uppermoſt intercoſtal arteries on each ſide, v. v the firſt, w. w the ſecond, accompanying the veins t. t: u. u.

x. x The iliac veins cut off both above and below the epigaſtrics.

y. y The iliac arteries cut off the ſame way.

z. z The epigaſtric veins, which unite themſelves with the mammaries, and ſend branches to the muſculi recti abdominis, &c. The larger branches of the right one are forked, as are thoſe of the mammary with which they are united.

α. α The epigaſtric arteries, accompanying the veins z. z, and uniting themſelves with the mammary arteries.

β The conjunction of the larger branches of the left epigaſtric vein, where they are united with the branches of the mammary.

γ. γ The roots of the venæ ſaphenæ.

FIGURE XVII.

This figure repreſents the diſtribution of the vena azygos, *the jugulars and ſubclavians, with the roots of the vena cava, the axillaries, intercoſtals, emulgents, &c. It is taken from Euſtachius, Tab. 27. Fig. 6.*

a *The* ſuperior *vena cava cut off near the heart.*

b. b The ſubclavian veins.

c The root of the vein f, Tab. I. Fig. I.

d Is this the root of the vein q, Fig. 18.?

e The root of the vein l, Fig. 18.

f f. f f The internal jugular veins.

g. g The external jugular veins. Their branches ſent to the neck, and their conjunctions, both with one another, and with a branch of the left internal jugular, are here conſpicuous.

h. h The roots of the *axillary* veins.

i. i: k. k The roots of the two uppermoſt intercoſtal veins on each ſide. t. u: t. u Fig. 16.

l. m. n *The vein* l, *ariſing from the left trunk of the cava in the jugulum, is divided into two branches; one of which* m, *running down with the left phrenic nerve, is beſtowed upon the diaphragm and mediaſtinum; and the other* n, *being reflected under the brachial artery, is joined about the fifth vertebra of the thorax, with that branch of the vena* azygos, *which is reflected between the ſixth and ſeventh ribs, near their roots.*

o *The vena ſine pari.*

p *The diviſion of the vena ſine pari at the eighth* vertebra of the thorax, *as I have ſometimes obſerved it.*

q *The right, and* r *the left branch of the vena ſine pari, which is joined with the firſt lumbar vein* π. ϱ *of that ſide, ariſing below the emulgent.*

The vena azygos, towards the eighth vertebra of the thorax p, *or the tenth, is divided into two branches,* viz. *the right* q, *and the left* r; *theſe running downwards, paſs the diaphragm, and each of them is inſerted variouſly by one or more branches, either into the back part of the cava, near the origin of the emulgent vein, or into the emulgent itſelf, eſpecially the left (for I do not remember that I ever obſerved this happen in the right) backwards, upwards, and downwards,* viz. *at that part where the ſpermatic vein is ſent off, or likewiſe* *ſometimes into the next branches* π. ϱ *of the veins, which ariſe at the top of the ſecond vertebra of the loins.* De Renib. Cap. XVI.

The laſt branches of the ſame vein (viz. the azygos) *are for the moſt part mingled or joined with the firſt veins of the loins* π. ϱ, *ariſing at the ſecond of the lumbar vertebræ.* De vena ſine pari, antigr. XVII.

s *A branch of the vena azygos, which being reflected upwards, near the roots of the ribs, ſupplies* t *the third,* u *the fourth,* v *the fifth, and* w *the ſixth intercoſtal ſpace of the left ſide.*

Sometimes likewiſe the vena ſine pari, towards the ſixth vertebra of the thorax, ſends off the branch s *to the left ſide, which running upwards, is joined at the fifth vertebra of the ſame with another branch* n, *ariſing from the left jugular, and from thence it aſcends as high as the third intercoſtal ſpace.* De vena ſine pari, antigr. XIII.

x. y. z. α. β. γ The roots of the reſt of the left intercoſtal veins, x of the ſeventh, y of the eighth, z of the ninth, α of the tenth, β of the eleventh, and γ of the twelfth.

δ. ε. ζ. η. θ. ι. κ. λ. μ. ν The roots of the right intercoſtal veins, δ of the third, ε of the fourth, &c.

ξ *The trunk of the vena cava, where the emulgents ariſe from it.*

o. o The roots of the emulgent veins.

π. ϱ The roots *of the firſt lumbar veins, riſing below the emulgents.*

FIGURE XVIII.

This figure gives another view of the ſame vena azygos, together with the vena cava, the ſubclavians, the roots of the mammary, jugular, and axillary veins, as alſo thoſe going to the mediaſtinum, pericardium, and diaphragm, and the roots of the upper hepatics. It is taken from Euſtachius, Tab. 27. Fig. 3.

a Both the venæ cavæ cut off from the right auricle.

b The vena cava inferior, cut off immediately below the two ſuperior hepatic veins.

c The vena cava ſuperior.

d. e The ſubclavian veins.

f The root of the vein f, Tab. 1. Fig. 1.

g. g The roots of the mammary veins. See l. l Fig. 16.

h. h The roots of the internal jugular veins.

i. i The roots of the external jugular veins.

k. k The roots of the *axillary* veins.

l. m. n. o. p *From the left branch of the great diviſion of the vena cava in the jugulum, hard by the internal jugular vein, there ariſe two branches, which running upon the mediaſtinum on that ſide of the thorax, one of them,* viz. l, *joins with the veins of the diaphragm* m, *which run up to meet it; and the other,* viz. n, *accompanying the left phrenic nerve, ſends off the branch* o *to the fleſhy portion of the diaphragm, while the one* p *communicates with the veins of the diaphragm, and is variouſly complicated both with the former branch, and with branches of the vein of the ſternum, running upon the pleura,* &c. De vena ſine pari, antigr. VIII.

q A vein belonging to the left portion of the mediaſtinum and pericardium.

r A vein belonging to the right portion of the mediaſtinum and pericardium, and joining itſelf by it's branches with the branches s. t of the right phrenic vein, *which run up to meeet it.*

u The right phrenic vein cut off.

Of the veins of the diaphragm, and eſpecially on the left ſide u, *the ſmall branches* s. t *belong not only to the pericardium, but likewiſe run up to the membranes which divide the thorax, and in ſeveral places are joined by branches of the vein of the ſternum, which run upon theſe membranes.* De vena ſine pari, antigr. VIII.

v The left phrenic vein cut off.

w. w The roots of the ſuperior hepatic veins; b. b Fig. 10.

FIGURE XIX. and XX.

Theſe two figures ſhew ſome of the veins of the right arm, eſpecially thoſe which are deep-ſeated. They are taken from Euſtachius, Tab. 8. Fig. 1. and 2.

A. a The right trunk of the vena cava in the jugulum.

B. b The root of the internal jugular vein.

C. c The root of the external jugular.

D. d The trunk of the humerary and axillary vein.

E. e The humerary vein.

F. f The diviſion of the humerary into two branches, a little above the bending of the fore-arm; the internal of which joined with a branch of the axillary, makes the common vein of the arm.

G A branch of the above internal branch of the humerary vein, which is joined with the deep-ſeated axillary vein, at the bending of the fore-arm.

H. h The root of the common ſuperficial vein of the arm.

i The axillary vein, together with the artery.

K. k The diviſion of the axillary vein into two branches, a little above the internal tubercle of the os humeri; the external of which, joined with another branch of the humerary, makes the common ſuperficial vein of the arm.

L. l The axillaris profunda, or deep-ſeated axillary vein, which for the moſt part ariſes above the middle of the length of the humerus, ſometimes higher, and ſometimes lower.

M The axillaris profunda, commonly double, a branch of it running down on each ſide of the artery. Sometimes both branches run into one, about the middle of it's courſe, immediately dividing again, and uniting a ſecond time at the bending of the fore-arm; which Veſalius was ignorant of.

m The axillaris profunda, above the middle of the humerus, is divided into two branches, which run down on each ſide of the artery, and at the bending of the fore-arm unite again into one, not only as you ſee it repreſented in the twentieth figure, but ſeveral other ways; none of which is deſcribed nor painted by Veſalius.

N. n The axillaris profunda, at the bending of the fore arm, ſends off ſome branches to the beginnings of the muſcles, ariſing from the internal tubercle of the humerus; and afterwards is joined either with the branch O, ſent from the humerary to form the common vein of the arm, or with o, which ariſes from the laſt mentioned vein; upon which ſubject Veſalius finds fault too pertly with Galen.

P. p The conjunction of the two above-mentioned veins, or the vena communis profunda; which appears to be divided into three branches, contrary to the opinion of Veſalius.

Q. q The deeper-ſeated branch of the vena communis profunda, running near the ulna, is not always ſingle, but ſometimes dividing into two, (which Veſalius takes no notice of) it runs down on each ſide of the artery, and paſſing under a muſcle inſerted into the eighth bone of the wriſt, and ſending off branches to the neighbouring parts, is diſtributed to the inſide of the hand, and gives off branches, ſometimes to all the fingers, ſometimes to four, or fewer of them.

R. r The more ſuperficial branch of the vena communis profunda, running near the radius, is frequently, as well as the laſt mentioned one, double, and going down under the long flexor muſcle of the thumb, and ſending off branches to the neighbouring muſcles, is ſpent upon the inſide of the thumb, or of the fore-finger.

S. s The middle branch of the vena communis profunda, which is neither deſcribed nor painted by Veſalius; running between the muſcles which bend the ſecond and third joint of the fingers, along the whole length of the radius, and the membranous ligament of the ulna, it gives off branches to the muſcles lying upon theſe parts; and ſometimes dividing into two, runs down on each ſide of the artery.

T. t A twig, ariſing at a quarter of the length of the ulna from it's extremity, from the above-mentioned middle branch of the vena communis profunda; which perforating the membranous ligament of the radius and ulna, paſſes backwards, and is diſtributed to the muſcles which ariſe from the ulna, and to others which lie upon it. This ſmall branch, which is ſometimes double, and runs down on each ſide of the artery, is careleſſly omitted by Veſalius.

U. u An artery running along with the axillary vein.

FIGURE XXI.

This figure repreſents ſome of the veins of the right arm. It is taken from Euſtachius, Tab. 27. Fig. 8.

a The vena cava ſuperior cut off near the heart.

b. b The ſubclavian veins.

c The root of the internal jugular vein.

d The root of the external jugular vein.

e *The axillary vein.*

f. f. f Branches, which belong to the breaſt, the ſide of the thorax, &c.

g Two veins, in the place of the *axillaris profunda*; which being united by means of the intermediate branch h, run afterwards into the one i near the bending of the fore-arm.

k *The external axillary,* Euſtach. de vena comm, prof. brach. antigr. IV.

l *A vein ſupplying the place of the humerary.*

I have obſerved this vein (viz. *the humerary) to be ſometimes entirely wanting; but from the external axillary, above the middle of the length of the humerus, was ſent off a ſmall branch, which running down in a winding courſe to the uſual place, ſupplied that of the humerary, and near the bending of the fore-arm, was joined by one branch* m, *with the external axillary, and with the other* (but here there are two n) *with the internal, after the manner of the humerary.* De vena comm. prof. brach. antigr. IV.

o *The diviſion of the axillary into two branches, a little above the internal tubercle of the humerus; the exterior of which* p, *being united with the other branch* m *of the humerary, conſtitutes the common ſuperficial vein* q. Expl. Fig. 19. and 20. K. k.

r *The* conjunction *of the common ſuperficial* vein with *the axillaris profunda.*

s *The* conjunction of a branch *of the common ſuperficial* vein with a branch *of the external axillary.*

FIGURE XXII.

This figure, repreſenting ſome of the veins of the left arm, is taken from Euſtachius, Tab. 27. Fig. 9.

a The vena cava ſuperior cut off near the heart.

b The root of the right ſubclavian vein.

c The left ſubclavian vein.

d The root of the vein f, Tab. 1. Fig. 1.

e The root of the internal jugular vein.

f The root of the external jugular vein.

I have met with the humerary vein ſometimes ſo ſmall, that unleſs I had been very intent, both with my mind and eyes, it would have altogether eſcaped me. De vena comm. prof. brach. antigr. IV.

h The conjunction of the humerary with the trunk of the *external axillary* vein; i, with a branch of it.

k *The axillary vein.*

l The vena *axillaris profunda.*

m The *external axillary* vein, Euſtach. de vena comm. prof. brach. antigr. IV.

n The conjunction of the *external axillary* vein, with the *axillaris profunda.*

o *The diviſion of the axillary into two branches, the exterior of which,* p, uniting with the branch, i, of the humerary, forms the vein, q, which is joined by another branch, r, coming from the interior branch of the diviſion of the external axillary.

s A branch ariſing from the *common ſuperficial* vein, and joined with the *axillaris profunda.*

Beſides theſe, are repreſented the ſuperficiary veins, branches of the external axillary, of the humerary, and of the common ſuperficiary; which diſtribute their branches, frequently united together, upon the fore-arm and hand. Thoſe which are uppermoſt in the figure, running upon the internal part of the cubit; and the lowermoſt, upon the external part of it, and upon the hand to the extremities of the fingers.

FIGURE XXIII.

This figure, repreſenting the human fœtus and ſecundines, is taken from Euſtachius, Tab. 14. *Fig.* 6.

A. B The chorion cut open and inverted. A It's external ſurface, B the internal.

C. C. D. D The amnios laid open. C. C It's external ſurface, D. D the internal.

E The fœtus, in the ſame poſition which it commonly has in the uterus.

F. F. G The umbilical rope; F. F the part where it is bare, G the part where it appears through the amnios.

H. H. H. I. I Veins and arteries of the umbilical rope ramified upon the chorion; H. H. H appear to be the veins, and I. I the arteries, if we may judge from their ſize and union.

FIGURE XXIV.

This figure is intended principally to ſhew the umbilical vein and artery, with the canalis venoſus, and arterioſus, in the fœtus. It is taken from Dr Trew's Diſſertatio Epiſtolica de Differentiis, &c. *Tab.* 2. *Fig.* 23.

a. a The vena portarum, running acroſs the liver.

b. c. d The ſinus of the vena portarum, the right portion of which, b, diſtributes it's branches e. e. e. e, through the greater or right lobe of the liver; but the left one, c, goes to the leſſer or left lobe. At it's entry it is enlarged into d. d, and ſends off the branches f. f. f. f. Below it receives the umbilical vein g. g, and above it ſends off the canalis venoſus, h, which below the branches of the vena cava i. i. i. i, collected from each lobe of the liver, is joined to the trunk of the inferior or aſcending vena cava k. k, with which is united the trunk of the ſuperior or deſcending vena cava, l, compoſed of the two jugulars * *, and the vena azygos or ſine pari, m, both which trunks form the right auricle, n.

o The ſack of the left auricle, into which enter the branches of the right pulmonary vein, p, and of the left, q.

r The right branch of the pulmonary artery.

s. s The left.

t The canalis arterioſus, ariſing from the pulmonary artery near it's bifurcation, and united with the arch of the aorta v. v.

x The right ſubclavian.

y The right carotid.

z The left carotid.

α The left ſubclavian.

β The deſcending aorta, divided at the iliac region on each ſide, into

γ. γ The umbilical artery, and

δ. δ The crural.

ε The arteria ſacra, ſent off at the diviſion of the aorta.

FIGURE XXV.

This figure repreſents the left auricle of the heart laid open, chiefly to ſhew the valve of the foramen ovale. Here likewiſe is laid open the canalis arterioſus. It is taken from Dr Trew, Diſſert. Epiſt. &c. *Tab.* 4. *Fig.* 61.

a. a. a The margin of the ſack of the left auricle laid open.

b The left auricle.

c. c The anterior part of the ſeptum.

d. e. e. f The poſterior part of it, or the valve of the foramen ovale, covering it's orifice entirely, through which at d and f the border of it's anterior part appears conſpicuous.

g A ſmall probe thruſt in between the anterior and poſterior part of the ſeptum.

h The trunk of the inferior vena cava.

i Part of the right auricle.

k The vena ſine pari.

l The right pulmonary artery.

m The left.

n The canalis arterioſus laid open.

o The aorta deſcendens laid open.

p A prominent production between the inſertion of the canalis arterioſus into the deſcending aorta, and the great cavity of the arch of the aorta.

q. r. s Aſcending branches of the arch of the aorta.

t The trunk of the coronary vein running to the right auricle.

FIGURE XXVI.

This figure is intended principally to ſhew the paſſage of the umbilical vein into the liver, and the continuation of the internal iliac artery into the umbilical. It is likewiſe taken from Dr Trew, Diſſert. Epiſt. &c. *Tab.* 5. *Fig.* 71.

a. a. a The breaſt compoſed of the ribs.

b The xyphoid cartilage.

c The ſtomach.

d The pylorus.

e A portion of the duodenum which is cut away.

f. f The leſſer lobe of the liver, turned up in ſuch a manner as to bring to view it's concave inferior or interior ſurface, g.

h A part of the lower ſurface of the right lobe of the liver.

i A ſmall portion of the fundus of the gall-bladder.

k The umbilical vein entering the ſubſtance of the liver, between the right and left lobe.

l The left kidney.

m Part of the right.

n The right ureter.

o The inferior vena cava.

p The extremity of the trunk of the deſcending aorta.

q. q It's diviſion into the iliac arteries.

r. r The external iliac.

s The internal. The continuation of which is

t. t. The umbilical artery, mounting up near the ſide of

v. v The urinary bladder.

x. x The termination of the future navel.

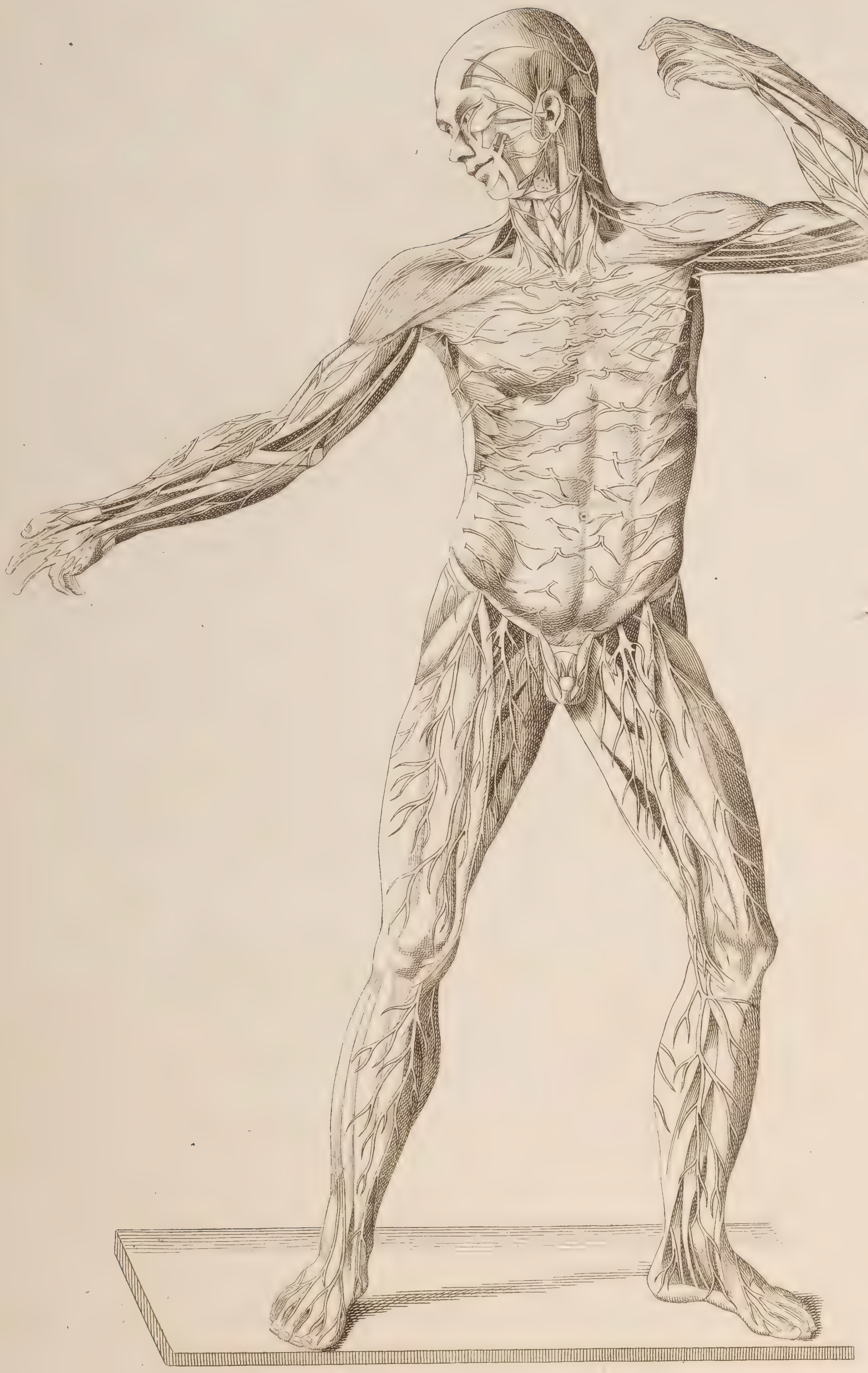
y. y Part of the umbilical rope running in a ſpiral manner.

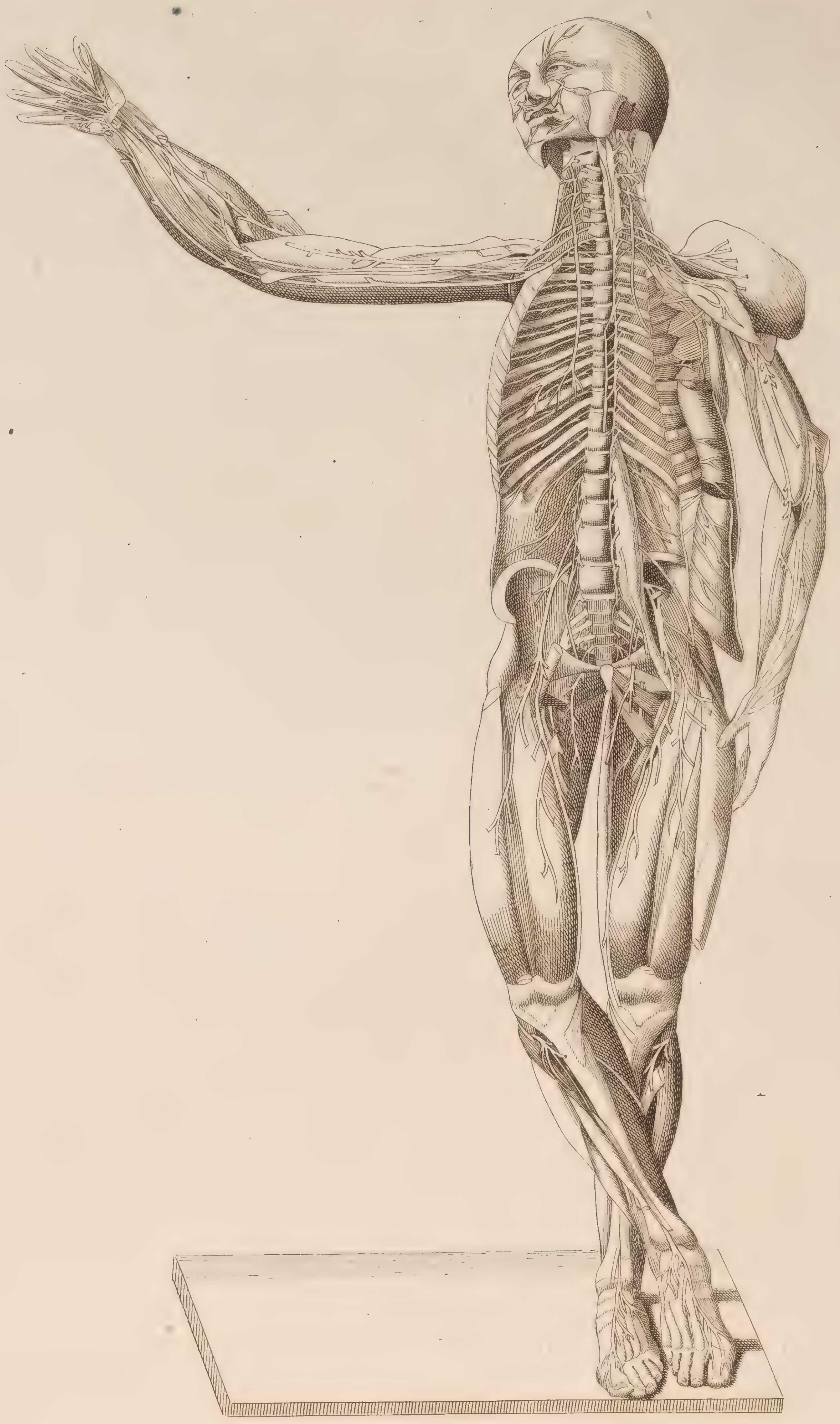
z The ſymphyſis of the os pubis.

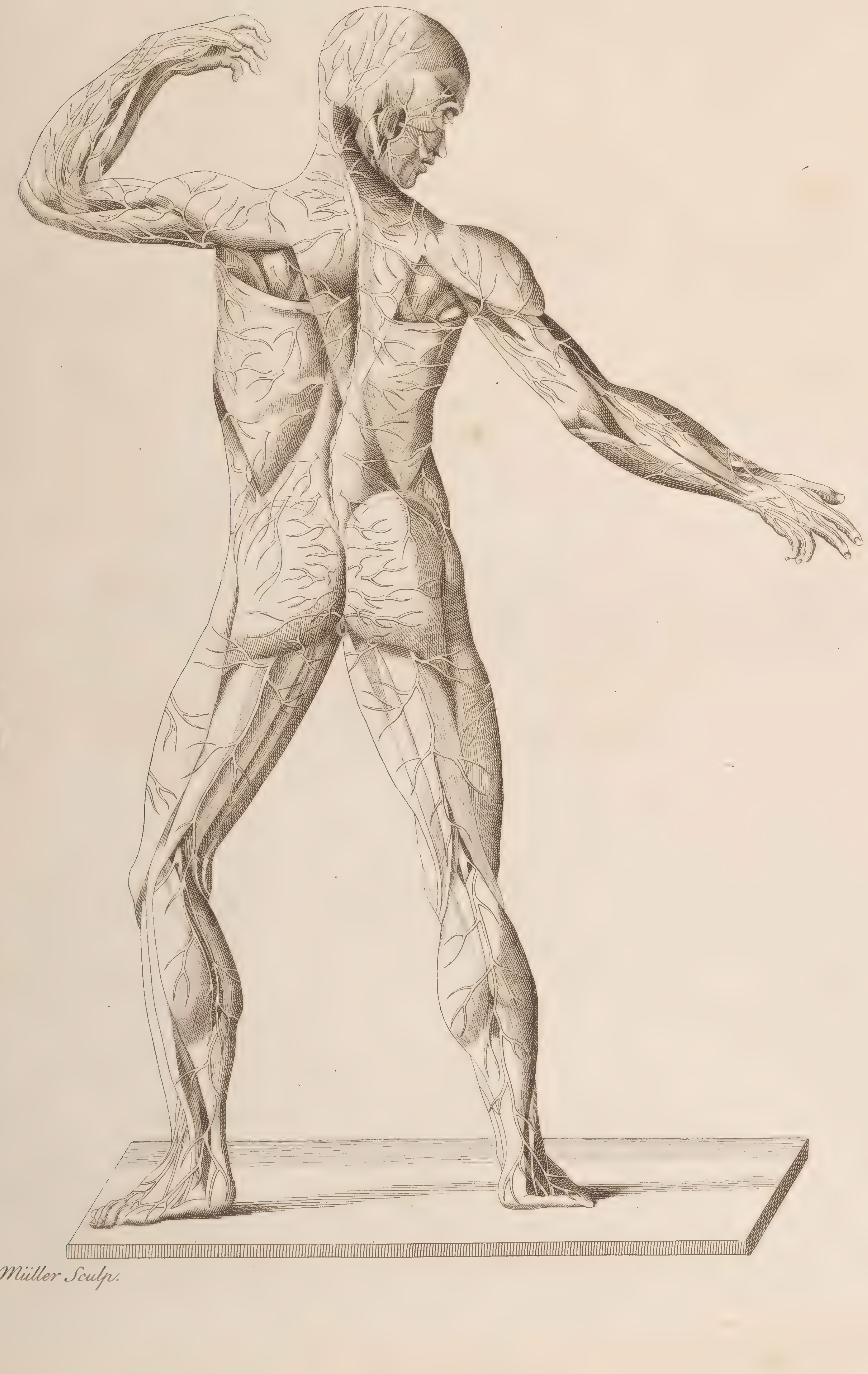
* The prominent ſpine of the os ilium.

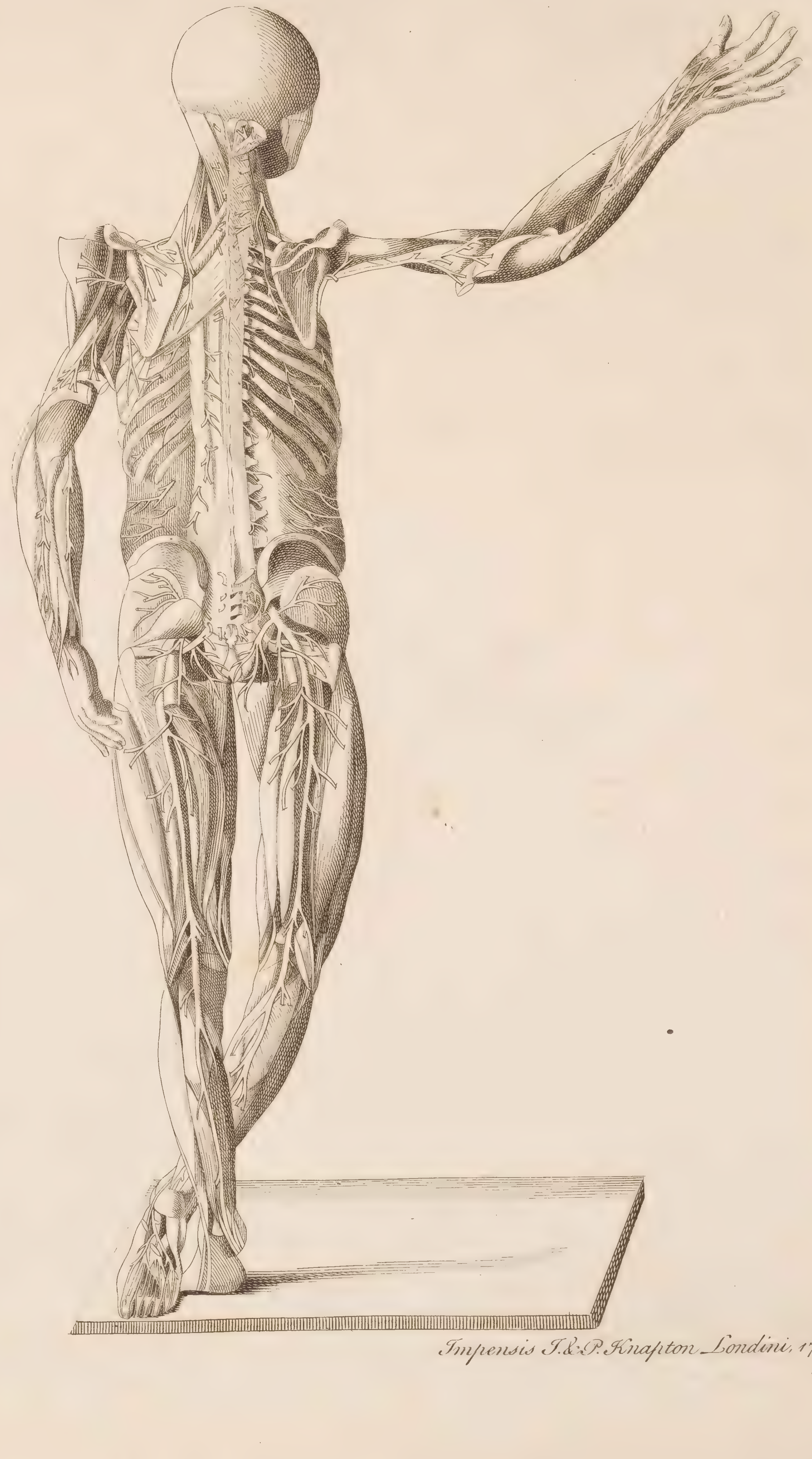
The End of the Syſtem of the Blood-Veſſels.

TAB. III.







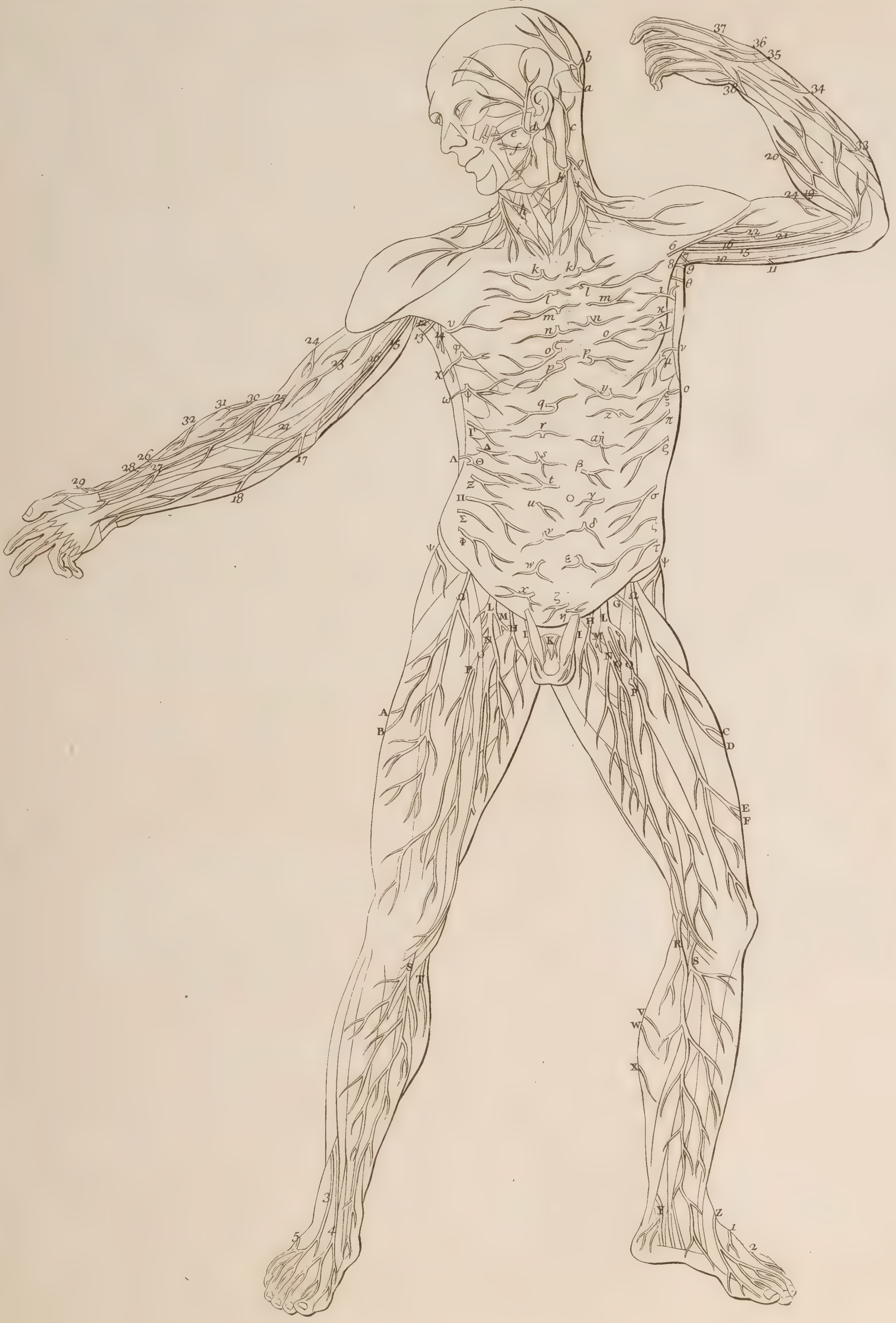


J. S. Müller Sculp.

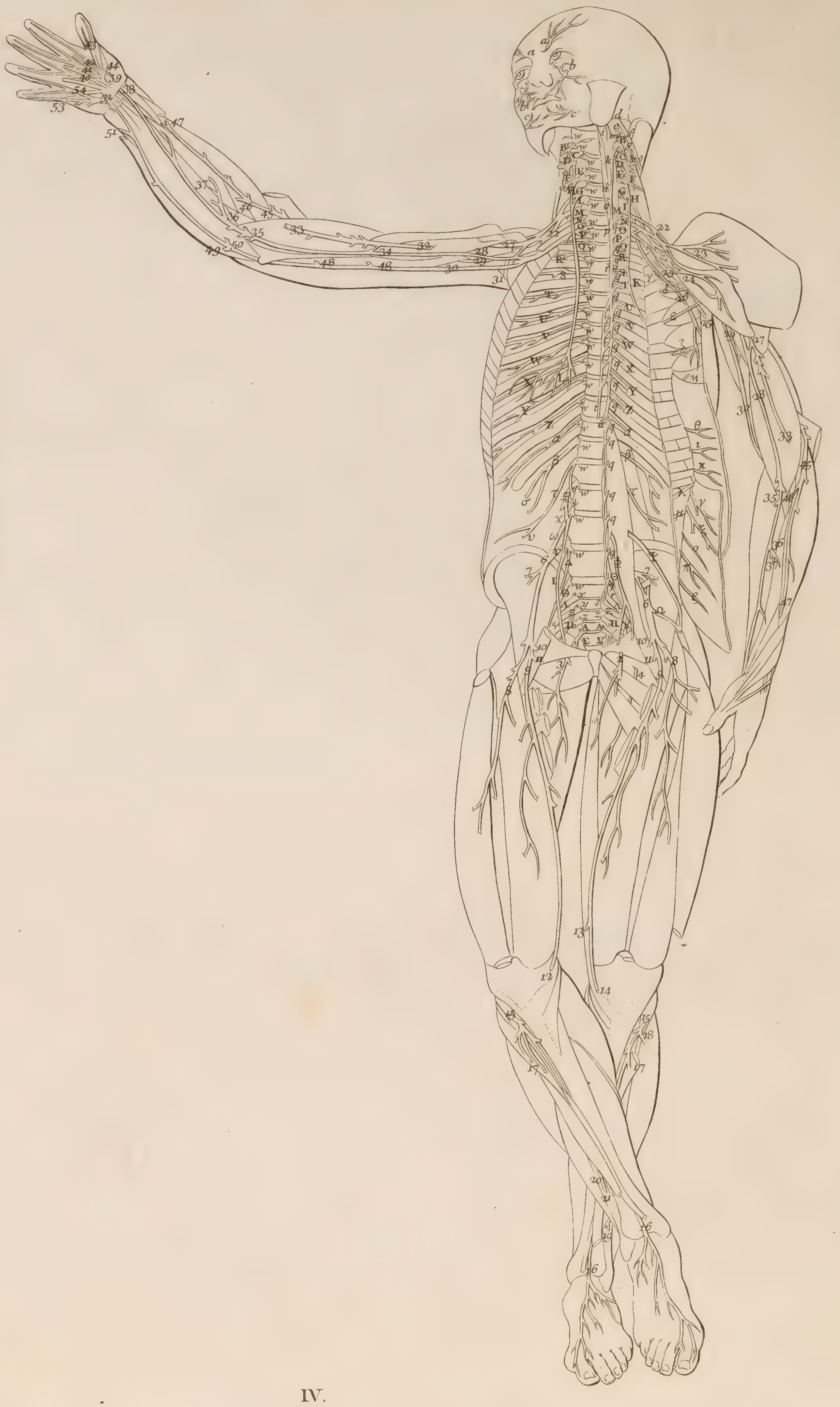
Impensis J. & P. Knapton Londini, 1750.

TAB. III.

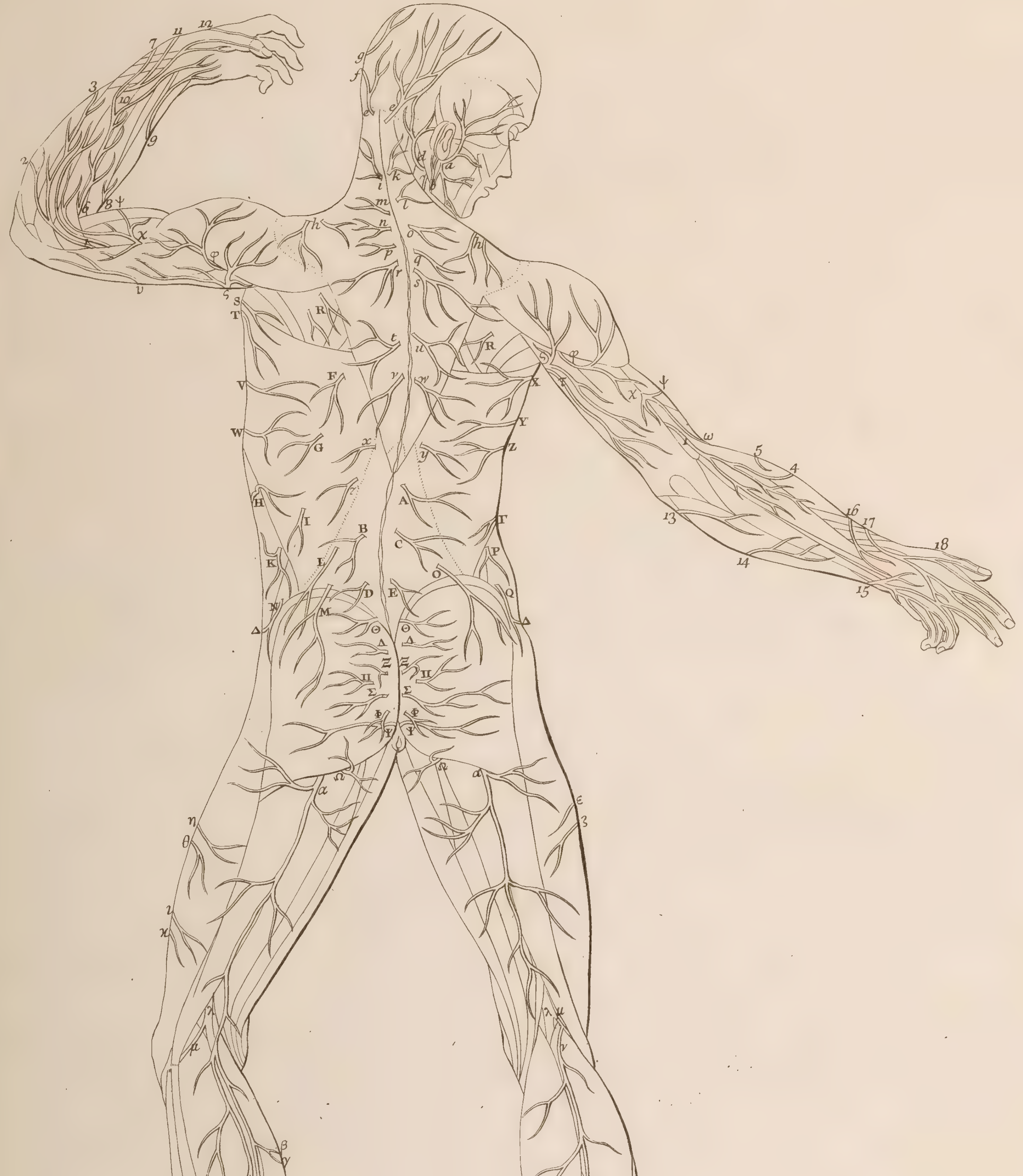
I.



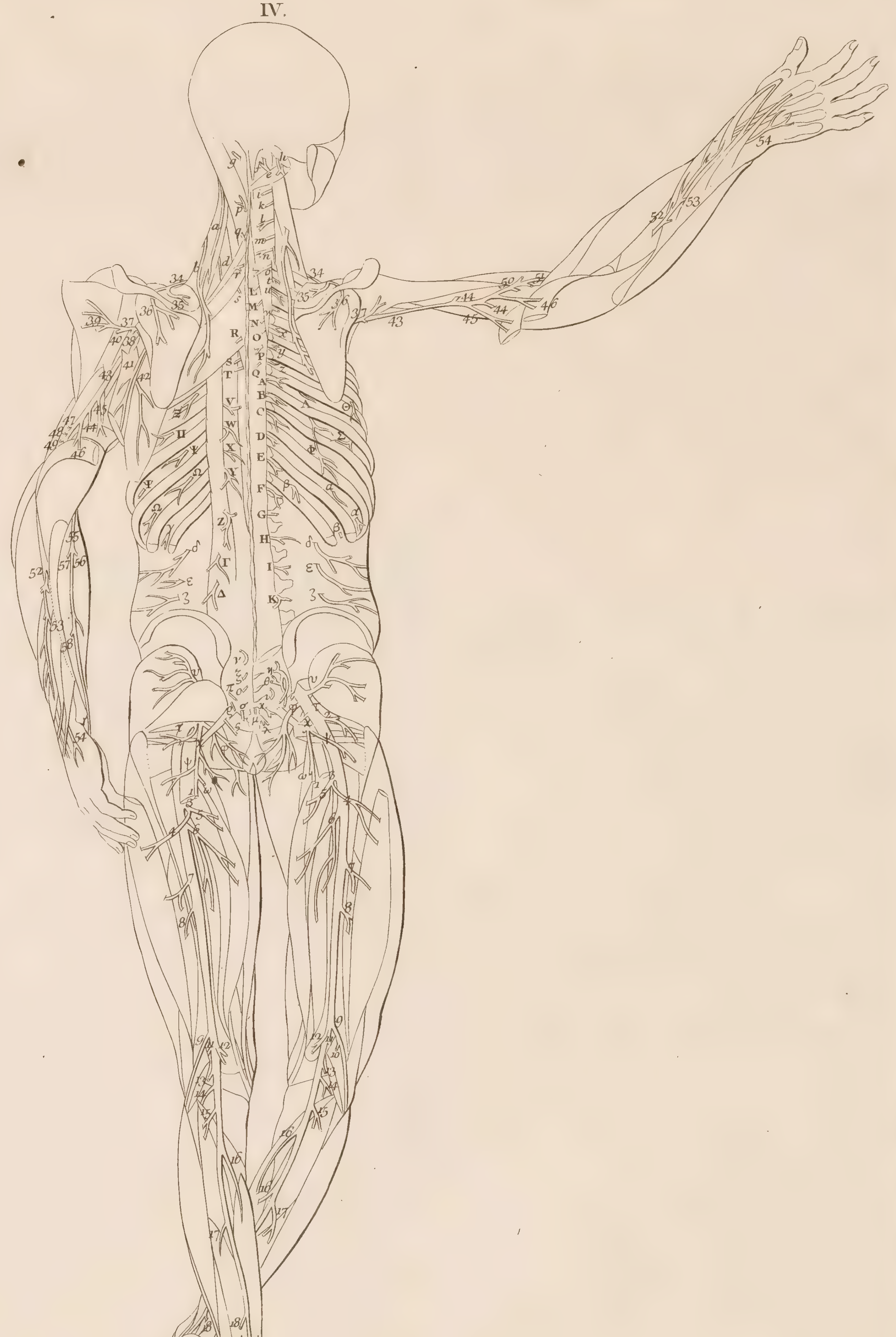
II.



III.



IV.



Impensis J.&P. Knapton Londini, 1749.

J.J. Müller Sculp.

A

COMPLEAT SYSTEM

OF THE

BLOOD-VESSELS AND NERVES.

TABLE III.

THIS table, conſiſting of four figures taken from Euſtachius, repreſents a compleat general ſyſtem of the nerves.

FIGURE I.

This figure ſhews the ſubcutaneous nerves, ſome of which appear between the muſcles, ſome perforate them, and ſome come from behind. It is taken from Euſtachius, publiſhed by Albinus, Tab. 21. *No.* 2.

There is a prodigious number of nerves beſtowed upon the (fat) *and theſe, as I think I have obſerved in diſſecting, are not ſo frequently inſerted into the ſkin, as is commonly imagined; but for the moſt part being divided into ſlender fibres, terminate in the ſubſtance of the fat.* De multitud. Cap. XXXIII.

a A branch of the ſecond of the cervical nerves; a continuation of the branch f Fig. 3.

b A branch, which makes g of the ſame figure.

c Another branch of the ſecond of the cervical nerves.

d The portio dura of the auditory nerves, e a branch of it going to the zygomatic muſcles, f to the buccinator.

g The recurrent nerve.

h. h Branches of the third pair of cervical nerves.

i. i. i Branches of the fourth pair of cervical nerves.

k. k Branches of the firſt part of coſtal nerves.

l. l Branches of the ſecond pair of coſtal nerves.

m. m Branches of the third pair of coſtal nerves.

n. n Branches of the fourth pair of coſtal nerves.

o. o Branches of the fifth pair of coſtal nerves.

p. p Branches of the ſixth pair of coſtal nerves.

q. r. s. t. u. v. w. x. y. z. α. β. γ. δ. ε. ζ. η. θ. ι. κ. λ. μ. ν. ξ. ο. π. ϱ. σ. ς. τ. υ. φ. χ. ψ. ω. Γ. Δ. Θ. Λ. Ξ. Π. Σ. Φ Branches of the coſtal nerves, and of the firſt of the lumbars. Of theſe θ makes T Fig. 3. ν makes V, ο makes W, χ makes Y, ω makes Z, and Λ makes Γ.

Ψ. Ψ Continuations of the branches Δ. Δ Fig. 3.

Ω. Ω A continuation of the nerve Ψ Fig. 2. A makes ε Fig. 3. B makes ζ, C makes η, D makes θ, E makes ι, F makes κ.

G Is the nerve Ω Fig. 2. but there is a fault in the engraving; becauſe it ought to be drawn joined with the nerve Ω, in the ſame manner as the nerve Ω is joined with the one Ψ Fig. 2.

H. I In the left thigh; continuations of branches, in which the nerve Φ Fig. 2. terminates. The ſame in the right thigh.

K The nerves of the penis, running along the back of it.

L. L The crural nerves. Compare 6. 6 Fig. 2.

M. M Branches of the crural nerves going to the pectinei muſcles.

N. N Subcutaneous branches of the crural nerves. Of which the branches O. O, having perforated the ſartorii muſcles, become ſubcutaneous P. P.

Q A branch of the crural nerve, which joins itſelf with the ſubcutaneous branch P.

R A branch of the crural nerve; a continuation of the branch 13 Fig. 2. it perforates the ſartorius, and afterwards joins itſelf with the nerve S.

S. S Branches of the crural nerves; continuations of the branches 12 and 14 Fig. 2. They go out between the ſartorii and graciles muſcles, and afterwards become ſubcutaneous.

T A branch correſponding to that ſent off from the nerve R in the left thigh.

V A continuation of the branch β Fig. 3.

W A continuation of the branch γ Fig. 3.

X A continuation of the branch δ Fig. 3.

Y The extremity of the ſciatic nerve, going to the ſole of the foot.

Z A continuation of the branch π Fig 3.

1 A continuation of the branch σ Fig 3.

2 A continuation of the branch ς Fig. 3.

3. 4 Continuations of the branches 20 and 21 Fig. 2.

5 A continuation of the branch ο Fig. 3. It joins itſelf to the nerve 3, in the ſame manner as ξ with ϱ Fig. 3.

6 Anſwers to the nerve 23 of the right arm. Is this a variation of it?

7. 7 Doubtleſs 7 and 16 are branches of one trunk, the root of which is lopped Fig. 2. in the right arm, between the origins of the ſecond of the brachial nerves 28, and of the fourth 30. But the nerves 7. 7 make ς. ς Fig. 3.

8 A branch of the ſecond of the coſtal nerves, going out between the ſecond and third rib; one of whoſe branches 9 belongs to the back, and makes the branch S Fig. 3. and the other 10 runs down the arm, a branch of which laſt 11 makes υ Fig. 3.

12 Anſwers to the branch 10, and make τ Fig. 3.

13 Anſwers to the branch 9, and makes X Fig. 3.

14 Seems to be the nerve 25 Fig. 2.

15. 15 The trunks of the fourth pair of brachial nerves, which run behind the greater condyles, 30. 30 Fig. 2.

16. 16 Certainly 16 and 7 are branches of one trunk, the root of which is cut off Fig. 2. in the right arm, between the origins of the ſecond of the brachial nerves 28, and of the fourth 30. But the branch 17 of thoſe nerves 16. 16 makes 13 Fig. 3. the branch 18 makes 14, the branch 19 makes 8, and the branch 20 makes 9.

21. 21 The trunks of the ſecond pair of brachial nerves, 28. 28 Fig. 2.

22 A branch which the firſt of the brachial nerves ſends off to join the ſecond. The ſame with 34 Fig. 2.

23 A branch like this I have ſeen ariſing from the axillary nerves.

24. 24 Continuations of the branches ψ. ψ Fig. 3.

25 The firſt trunk of the brachial nerves, emerging between the biceps and brachiæus internus; a continuation of the nerve 33 Fig. 2. It's branch 26 makes 16 Fig. 3.

27 A branch of the third trunk of the brachial nerves; a continuation of the branch 47 Fig. 2. It's branch 28 makes 17 Fig. 3. and the branch 29 makes 18 of the ſame figure.

30 A continuation of the branch ω Fig. 3.

31 This makes the branch 5 Fig. 3.

32 A continuation of the branch 4 Fig. 3.

33 A continuation of the branch 2 Fig. 3.

34 A continuation of the branch 3 Fig. 3.

35 A continuation of the branch 7 Fig. 3.

36 A continuation of the branch 11 Fig. 3.

37 Makes the branch 12 Fig. 3.

38 A branch of the fourth trunk of the brachial nerves; a continuation of the branch 51 Fig. 2.

FIGURE II.

This figure ſhews the diſpoſition of the internal nerves with regard to the muſcles, bones, &c. It anſwers to Tab. 19. *No.* 2. *of Euſtachius.*

a A branch of the firſt branch of the fifth pair of the brain, called the opthalmic, going out of the orbit, and winding upon the forehead. This is B Fig. 5, 3, 1. Tab. 4.

b The orbital branch of the ſecond branch of the fifth pair of the brain, going out at the foramen below the orbit, and diſtributing it's branches in the lower part of the face below the eye. This is H Fig. 1. Tab. 4.

c A branch of the maxillary branch of the third branch of the fifth pair of nerves of the brain, going out by a canal in the lower jaw bone by the ſide of the chin, and beſtowing it's branches upon the chin and lower lip.

As ſoon as this branch, together with the artery which accompanies it, has got down from the grinders to the leſſer teeth, it is divided into two; one part of it emerging by a foramen at the lower lip---which in man may eaſily be obſerved by an accurate anatomiſt. De Dentib. Cap. XXI.

d The trunk of the eighth pair of nerves of the brain, joined together with the recurrent nerve, in the ſame manner as f Fig. 2. Tab. 4.

e The trunk of the eighth pair of nerves of the brain cut off.

f The ſpinal recurrent nerve. g A branch of it belonging to the cleidomaſtoideus and ſternomaſtoideus muſcle. This is h Fig. 2. Tab. 4.

h The conjunction of the recurrent nerve, with the third of the cervical nerves. This is i Fig. 2. Tab. 4. Afterwards the recurrent winds itſelf backwards, ſee a Fig. 4.

i. i. i The left intercoſtal nerve.

k The upper cervical ganglion of the intercoſtal nerve.

l A branch of the ſecond cervical nerve, going to join the ganglion k.

m A branch of the firſt cervical nerve, going to the ſame ganglion k.

n. o Branches from the cervical nerves, going to the intercoſtal nerve.

p The ganglion of the intercoſtal nerve in the upper part of the thorax. I have not added any notes to thoſe which follow, as they appear plain at firſt ſight.

q. q. &c. Branches, by which the intercoſtal nerve is conjoined with the ſpinal nerves; viz. by the ſeventh and eighth of the cervical, and all the coſtal and lumbar. Of which thoſe that connect it with the loweſt of the coſtal and the ſucceeding four of the lumbar, paſs through the great pſoas muſcle.

r. s The extremity of the intercoſtal nerve, belonging to the firſt nerve r, and the ſecond s of the os ſacrum.

t A conſiderable nerve, ariſing from the intercoſtal near the vertebræ of the back; here indeed it has ſix beginnings, according to thoſe branches by which the intercoſtal is joined with the fourth, fifth, ſixth, ſeventh, eighth, and ninth dorſal. This is ω ω Fig. 2. Tab. 4. which nerve, here cut off, paſſes through the diaphragm into the abdomen, where it joins itſelf with the eighth pair of nerves of the brain, and with other branches of the intercoſtal nerve, &c. See Tab. 4. Fig. 2.

u A branch of the intercoſtal nerve. Θ Fig. 2. Tab. 4.

w. w. &c. Branches, by which the right intercoſtal nerve is joined with the ſpinal nerves. See φ. φ. &c. Fig. 2. Tab. 2.

x. y Thoſe branches of the right intercoſtal, which r. s repreſent of the left.

z. z Branches, repreſented by 6 Fig. 2. Tab. 4.

A. A Branches, repreſented by 7 Fig. 2. Tab. 4.

B. B The ſecond pair of cervical nerves.

C. C Branches, by which the ſecond pair of cervical nerves is joined with the third.

D. D The third pair of cervical nerves.

E. E Branches, by which the third pair of cervical nerves is joined with the fourth.

F. F The fourth pair of cervical nerves.

G. G The fifth pair of cervical nerves.

H I K. H I K L The phrenic nerves, ariſing by two originations, the one H from the fourth cervical pair, and the other I from the fifth. K. K Their trunks, the left of which, upon account of the point of the heart's being turned to the left ſide, is bended towards the left. L The extremity of the right, branched out upon the diaphragm. See 24. 25. 26. 27: 24. 25. 26. 27. Fig. 2. Tab. 4.

M. M The ſixth pair of cervical nerves.

N. N The ſeventh pair of cervical nerves.

O. O The eighth pair of cervical nerves.

P. P Branches of the firſt pair of dorſal nerves, going to join the eighth pair of cervicals. Compare 29. 29 Fig. 2. Tab. 4.

Q. R. &c. The coſtal branches of the dorſal nerves, which run according to the length of the ribs. Q. Q The firſt, R. R the ſecond, S. S the third, T. T the fourth, U. U the fifth, V. V the ſixth, W. W the ſeventh, X. X the eighth, Y. Y the ninth, Z. Z the tenth, α. α the eleventh, β. β the twelfth. The eleventh on the left ſide penetrate the internal intercoſtal muſcles, which being removed on the right, the diſtribution of their branches between the internal and external intercoſtal muſcles appears. They ſend off branches, ſome of which belong to the intercoſtal muſcles, and others are diſtributed to the external parts. But the twelfth run firſt behind the great pſoas muſcles, and then upon the internal part of the quadrati lumborum and the tranſverſi abdominis, as is ſhewn in the left ſide.

γ Does this belong to the firſt pair of coſtal nerves?

δ A branch of the ſecond coſtal nerve, which paſſes through the external intercoſtal muſcle, immediately under the origin of the ſerratus magnus, which proceeds from the ſecond rib; afterwards it bends itſelf backwards according to the direction of the origin of the above ſerratus, and then diſtributes itſelf upon the outſide of the latiſſimus dorſi under the ſkin.

ε A ſimilar branch of the third coſtal nerve, paſſing through in the ſame manner, and diſtributed as the former.

ζ A ſimilar branch of the fourth coſtal nerve, which when it has got under the ſkin, winds partly backwards, and partly forwards and downwards.

η A ſimilar branch of the fifth coſtal nerve, which paſſes firſt through the external intercoſtal muſcle, then through the head of the external oblique, that part of it which riſes from the fifth rib, and afterwards runs along under the ſkin.

θ. ι. κ Branches of the ſeventh θ, the eighth ι, and the ninth coſtal nerve κ, diſtributed to the internal part of the external oblique muſcle of the abdomen.

λ A branch of the tenth coſtal nerve, which after having paſſed through the external intercoſtal muſcle and the tranſverſe, runs forwards between the tranſverſe and internal oblique muſcles towards the rectus muſcle, and paſſes through it likewiſe by the aponeuroſes of the oblique muſcles to the parts below the ſkin.

μ A branch of the eleventh coſtal nerve, which follows the ſame courſe with that of the tenth, λ.

ν A branch of the tenth coſtal nerve, beſtowed upon the inſide of the internal oblique muſcle.

ξ A branch of the eleventh coſtal nerve, beſtowed the ſame way as the laſt, ν.

ο. π Theſe appear to be branches of the twelfth coſtal nerve, running between the tranſverſe and internal oblique muſcles.

ϱ This ſeems to be a branch of the firſt pair of lumbar nerves, running likewiſe between the tranſverſe and internal oblique muſcles.

σ. σ Branches of the twelfth pair of coſtal nerves, which paſſing through the tranſverſe muſcles of the abdomen, make δ ε. δ ε Fig. 4. and running forwards, appear to be the branches, ο. π.

τ. τ The firſt pair of lumbar nerves.

υ A branch of the firſt pair of lumbar nerves, which paſſing through the tranſverſe muſcle of the abdomen, makes ζ Fig. 4. and running forwards, appears to be the branch, ϱ.

φ The ſecond pair of lumbar nerves. It's two branches which are lopped, make the roots of the nerve, ψ.

χ The ſecond of the lumbar nerves joins with the third, and with the upper root of the nerve 1.

ψ A nerve, marked Φ on the left ſide, ariſing here by a double origin, one from the firſt pair of lumbar nerves, and the other from the ſecond.

ω The third of the lumbar nerves.

Γ The fourth of the lumbar nerves.

Δ A branch, which is ſent from the fourth pair of lumbar nerves to join the ſciatic.

Θ. Θ The fifth pair of lumbar nerves.

Λ. Λ The firſt pair of nerves of the os ſacrum.

Ξ. Ξ The ſecond pair of nerves of the os ſacrum. That on the right ſide is joined by an intermediate branch with the third.

Π. Π The third pair of nerves of the os ſacrum.

Σ. Σ The fourth pair of nerves of the os ſacrum.

Φ A nerve, whoſe origin is marked Ψ on the left ſide, emerging from the great pſoas muſcle, and going down along with it into the groin, being firſt however divided into two branches, which become ſubcutaneous, H. I Fig. 1. in the left thigh.

Ψ A nerve, which ariſes by a double origin from the ſecond lumbar nerve φ, where it's roots are cut through. This nerve is marked Ω Fig. 1.

Ω A branch of the crural nerve, which is conjoined into one with the nerve, ψ. This is marked G Fig. 1.

1. 1 A conſiderable nerve on each ſide, which ariſing by two roots, the one from the ſecond and third, and the other from the fourth of the lumbar nerves, runs down firſt under the great pſoas muſcle, then by the ſide of the pelvis to the upper part of the great foramen of the coxendix, where it divides into two branches, the anterior, 2, and the poſterior, 3.

2 The anterior, goes out immediately above the obturator muſcle by a ſinus, in the upper part of the great foramen of the coxendix; afterwards it runs down under the pectineus and adductor longus of the thigh, firſt contiguous to the obturator externus, then to the adductor brevis of the thigh, and afterwards to the magnus, giving branches to both the longus and brevis, and laſtly to the gracilis.

3. 3. 4 The poſterior, paſſes through the ſame ſinus, and running immediately down between the two obturators, gives a branch to the external; it goes out then by that external branch, 4, and runs down between the pectineus and the adductor longus and brevis on the fore-part, and the obturator externus and adductor magnus behind, terminating in branches in the adductor magnus.

5 The ſciatic nerve.

6. 6 The crural nerves. The right of which is compoſed of the third and fourth lumbar nerves conjoined, and a portion of the ſecond. In the left there is formed a kind of inſula, through which I have obſerved a ſlip of the great pſoas muſcle to paſs.

7. 7 Branches of the crural nerves going to the internal iliacs.

8. 8 The external branches of the crural nerves, which running down the thighs, give branches to the internal iliac muſcles, the muſculi recti of the leg, the vaſti interni, the crurei, and the vaſti externi.

9. 9 The internal branches of the crural nerves, which run down the thigh, and in their courſe give off branches to the vaſti interni.

10. 10 The roots of the nerves M. M Fig. 1.

11. 11 The roots of the nerves N. N Fig. 1.

12 Here the internal branch of the right crural nerve, emerging between the muſcles gracilis and ſartorius, is cut off, where it ſhould terminate in the nerve, S, on the right ſide, Fig. 1.

13 The root of that branch, which after it has perforated the ſartorius muſcle, makes R, Fig. 1.

14 The internal branch of the left crural nerve cut off, where it is about to penetrate between the gracilis and ſartorius muſcles, and to terminate in the nerve, S, on the left ſide, Fig. 1.

15. 15 The branches 9. 9 Fig. 4. of the ſciatic nerves, which emerge forwards between the fibulæ and peronei longi, and then run downwards, firſt under the long extenſors of the toes, then between the long extenſors of the great toes, and the tibialis antici; and afterwards they go out under the long extenſors of the great toes 16. 16, and continue their courſe to the

extremities of the feet. They produce the branches, 17. 17. 18. 19. 20. 21: of which 17. 17 belong to the long extenſors of the toes; 18 to the peroneus longus; 19 is ſubcutaneous, and divides itſelf into two branches, which anſwer to the branches 20 and 21; 20. 21 are a variation of the branch 19, dividing itſelf ſooner into 20. 21, which make the ſubcutaneous ones 3 and 4, Fig. 1.

22. 22 The fifth, ſixth, ſeventh, and eighth pair of cervical nerves, variouſly conjoined, together with acceſſory branches from the firſt of the coſtal nerves. They firſt proceed to the axillæ, and afterwards terminate in the brachial nerves.

23 A branch, which ariſing from the above nerves in their courſe to the axilla, is diſtributed to the inſide of the pectoral muſcle.

24 A branch, which ariſing in the ſame manner from the above nerves, is beſtowed upon the inſide of the ſerratus anticus.

25. 25 A branch, which going off like the former from the above nerves, belongs to the muſcle called latiſſimus dorſi. It's progreſs under that muſcle, is ſhewn 41, Fig. 4.

26 A branch of the ſixth pair of cervical nerves, beſtowed upon the ſerratus magnus muſcle, running down according to the direction of that muſcle, and afterwards under the latiſſimus dorſi. It's progreſs under this laſt, is ſhewn 42, Fig. 4.

27. 28. 29. 30: 27. 28. 29. 30 The four large brachial nerves, in which thoſe running on each ſide by the axillæ principally terminate. 27. 27 The firſt, which in a manner perforate the muſculi coracobrachiales. 28. 28 The ſecond, which run according to the length of the humerus as far as the bending of the arm, and from thence by the fore-arm, down to the palm of the hand. 29. 29 The third, which run on the back part of the humeri, and make 43. 43, Fig 4.

30. 30 The fourth, which run down according to the length of the humerus, to the poſterior part of the large condyle, and from thence by the fore-arm to the palm of the hand.

31 A branch of the third brachial nerve 29, which running backwards, makes 37. Fig. 4.

32 The firſt of the brachial nerves 27, after it has run a little way under the coracobrachialis muſcle, makes it's way through it, and afterwards runs under the ſhorter head of the biceps, giving branches to this, and the internal brachial muſcle; afterwards emerging between theſe two muſcles on the fore-part of the arm, it becomes the ſubcutaneous nerve 25, Fig. 1. but here where it emerges, it is cut off, 33.

34 A branch of the firſt of the brachial nerves, which it ſends off to join the ſecond. The ſame in the left arm.

35. 35 Here the ſecond trunk of the brachial nerves 28. 28, give branches to the pronatores and teretes, the radiales interni, the ſublimes, and palmares longi muſcles.

36. 36 Conſiderable branches of the ſecond brachial nerves, which ſend off branches to the profundi, and the long flexors of the thumbs; and afterwards 37. 37 get in between theſe muſcles, and run down to the pronatores quadrati muſcles.

37 This ſecond of the brachial nerves, paſſes through the ligament of the wriſt on the inſide; afterwards 39 proceeds to the wriſt, where it divides into five branches, 40. 41. 42. 43. 44. Of which

40 The firſt, gives a branch to the third lumbrical muſcle, after which it divides itſelf into two; one branch running along the ſide of the ring finger next the middle finger, and the other along the ſide of the middle finger next the ring finger.

41 The ſecond gives a branch to the ſecond lumbrical, and afterwards divides likewiſe into two; one branch running along the ſide of the middle finger next the fore finger, and the other along the ſide of the fore finger next the middle finger.

42 The third gives a branch to the firſt lumbrical, and afterwards runs upon the ſide of the fore finger next the thumb.

43 The fourth goes to the thumb, and their dividing into two, runs upon each ſide of it.

44 The fifth, which is here cut off, gives a branch to the ſhort abductor of the thumb And then it gets between the ſhort flexor and the muſculus opponens of the thumb, and belongs to the opponens.

45. 45 Continuations of the nerves 51 Fig. 4. The third pair of brachials 29. 29, after having run backwards by the ſhoulder bones from the axillæ, and then between the external brachial muſcles on the one ſide, and the long and ſhort heads of the bicipites on the other, and afterwards between the internal brachials and long ſupinators, emerge here 45. 45, between theſe laſt-mentioned muſcles, and thence proceed to the inſide of the fore-arm, where having given off branches to the long ſupinators and external radial muſcles, they paſs through the ſhort ſupinators 46. 46, and become the nerves 52. 52, Fig. 4.

47. 47 The nerves here cut off, make 27, Fig. 1. and 10, Fig. 3.

48. 48 Branches of the fourth brachial nerve 30, going to the external brachial muſcle, 49. 49 to the internal ulnar, 50 to the profundus.

51 A branch of the ſame, which paſſes under the internal ulnar to the back part of the extremity of the fore-arm, and makes the ſubcutaneous nerve 38, Fig. 1. and 15, Fig. 3.

After giving off this branch, the fourth brachial nerve runs before the ligament of the wriſt inwards, towards the palm of the hand, where it divides into the branches 52. 53. 54. Of which

52. The firſt remarkable one, ſpreading itſelf in the wriſt under the tendons of the profundus and the lumbricales muſcles, it's branches are diſtributed principally to theſe, viz. the abductor of the little finger, the adductor of the fourth metacarpal bone, the interoſſeous muſcles, the adductor of the thumb, the ſhort flexor of the thumb, and the abductor of the fore finger.

53 The ſecond, after it has given off the ſubcutaneous branch which is here cut away, and another to the abductor of the little finger, runs along the back ſide of the little finger.

54 The third, dividing into two at the roots of the ring finger and little finger; one branch runs along the ſide of the little finger next the ring finger, and the other along the ſide of the ring finger next the little finger.

FIGURE III.

This figure ſhews the ſubcutaneous nerves, ſome of which run between the muſcles, ſome perforate them, and ſome run upon the fore-part of them. It is taken from Euſtachius, Tab. 23. No. 2.

There is a prodigious number of nerves beſtowed upon the (fat) *and theſe, as I think I have obſerved in diſſecting, are not ſo frequently inſerted into the ſkin, as is commonly imagined; but for the moſt part being divided into ſlender fibres, terminate in the ſubſtance of the fat.* De multitud. Cap. XXXIII.

a The portio dura of the auditory nerves. See d, &c. Fig. 2.

b The third of the cervical nerves, h Fig. 1.

c The recurrent nerve, g Fig. 1.

d The ſecond of the cervical nerves, c Fig. 1. But here it joins itſelf with a branch of the nerve c.

e. e Branches of the ſecond cervical nerves. The left is a continuation of the nerve g Fig. 4.

f This branch makes a Fig. 1.

g A continuation of the branch b Fig. 1.

h. h Branches of the fourth pair of cervical nerves, which make i Fig. 1. The left perforate the cucullaris muſcle, to which thoſe on the right ſide anſwer.

i. k. l. m. n. o. p. q. r. s. t. u. v. w. x. y. z. A. B. C. D. E. F. G. H. I. K. L. M. N. O. P. Q Branches of the cervical, dorſal, and lumbar nerves, running backwards through the muſcles to the parts under the ſkin.

R. R Nerves perforating the infraſpinati muſcles Are theſe produced from the nerves 36. 36 Fig. 4?

S A continuation of the nerve 9 Fig. 1.

T A continuation of the nerve ϑ Fig. 1.

V A continuation of the nerve ν Fig. 1.

W A continuation of the nerve ο Fig. 1.

X A continuation of the nerve 13 Fig. 1.

Y A continuation of the nerve χ Fig. 1.

Z A continuation of the nerve ω Fig. 1.

Γ A continuation of the nerve Λ Fig 1.

Δ. Δ Branches, which make Ψ. Ψ Fig. 1.

Θ. Λ. Ξ. Π. Σ. Φ. Ψ: Θ. Λ. Ξ. Π. Σ. Φ. Ψ Appear to be continuations of the nerves ν. ξ. ο. π. ϱ. σ. ς Fig. 4.

Ω. Ω Continuations of the nerves ω. ω Fig. 4.

α. α Continuations of the nerves 1. 1 Fig. 4. Here it appears how the right and left differ from each other. The Branch β of the left makes V Fig. 1. the branch γ makes W, and the branch δ makes X of the ſame Fig. 1.

ε A continuation of the nerve A Fig. 1.

ζ A continuation of the nerve B Fig. 1.

η A continuation of the nerve C Fig. 1.

ϑ A continuation of the nerve D Fig. 1.

ι A continuation of the nerve E Fig. 1.

ϰ A continuation of the nerve F Fig. 1.

λ. λ The ſciatic nerves.

μ. μ Branches of the ſciatic nerves, which run down upon the fore-part of the legs. They are the ſame with 9. 9 Fig. 4. and 15. 15 Fig. 2.

ν This ſupplies the defect of the nerve α, which does not run down upon the right, as it does upon the left leg.

ξ. ξ Branches of the ſciatic nerves; continuations of 13. 13 Fig. 4. which about that part certainly ariſe from the ſciatics. The left joins in with the nerve ϱ, in the ſame manner as 5 with 3 Fig. 1. The branch ο of the right, makes 5 Fig. 1.

π. ϱ Make 4 and 3 Fig. 1. and π makes z Fig. 1. The branch σ makes 1 Fig. 1. and the branch ς makes 2 in the ſame Fig. 1.

ς. ς Continuations of the nerves 7. 7 Fig. 1.

τ A continuation of the nerve 12 Fig. 1.

υ A continuation of the nerve 11 Fig. 1.

φ. φ Theſe ariſe from the branches of the third of the brachial nerves 37. 37 Fig. 4.

χ. χ Branches of the third pair of brachial nerves. They are the ſame with 47 and 50 Fig. 4. Their branches ψ. ψ make 24. 24 Fig. 1. and the branch ω makes 30 Fig. 1.

1. 1 Branches of the third pair of brachial nerves; one in the right arm, and two in the left; which makes a variation. Thoſe of the left are certainly 48. 49 Fig. 4. Their branch 2 makes 33 Fig. 1. the branch 3 makes 34, and the branch 4 makes 32 of the ſame, Fig. 1.

5 A continuation of the branch 31 Fig. 1.

6 A branch of the firſt trunk of the brachial nerves. It is the ſame with 25 Fig. 1. A continuation of the nerve 33 Fig. 2. it's branch 7 makes 35 Fig. 1.

8 A continuation of the nerve 19 Fig. 1.

9 A continuation of the nerve 20 Fig. 1.

10 A branch of the third trunk of the brachial nerves. It is the ſame with 27 Fig. 1. A continuation of the nerve 47 Fig. 2. it's branch 11 makes 36 Fig. 1.

12 A continuation of the nerve 37 Fig. 1.

13 A continuation of the nerve 17 Fig. 1.

14 A continuation of the nerve 18 Fig. 1.

15 A branch of the fourth trunk of the brachial nerves. It is the ſame with 38 Fig. 1. which is a continuation of the branch 51 Fig 2. Here it joins in with a branch of the nerve 17.

16 A continuation of the nerve 26 Fig. 1.

17 A continuation of the nerve 28 Fig. 1.

18 A continuation of the nerve 29 Fig. 1.

FIGURE IV.

This figure, like the ſecond, ſhews the internal nerves; and is taken from Euſtachius, Tab. 20. No. 2.

a The recurrent nerve: a continuation of the nerve f, Fig. 2.

b A branch of the fourth pair of cervical nerves, making F on the left ſide, Fig. 2. which branch joins itſelf to the recurrent; and from the conjunction of theſe is produced the nerve c, belonging to the cucullaris muſcle.

d. d Branches of the fifth pair of cervical nerves, which perforate the middle ſcaleni muſcles, and afterwards running down upon the back, diſtribute their branches to the large rhomboidei.

e A poſterior branch of the ſecond of the cervical nerves on the right ſide, which emerging here between the inferior oblique and the larger rectus and poſticus of the head, gives a branch to the rectus, and runs on towards the complexus, which it is juſt going to perforate, where it is here cut off f.

g The ſame branch on the left ſide, leaving the complexus, and cut off where it is about to perforate the cucullaris, and become the ſubcutaneous nerve e, on the left, Fig. 3.

h A branch of the firſt of the cervical nerves.

i. k. l. m. n. o The laſt branches of the cervical nerves; i of the third, l of the fourth, n of the fifth, o of the ſixth. But k is a branch which derives it's origin from the nerve i; and m in the ſame manner derives it's origin from the nerve l. At leaſt this ſeems to be the caſe to me, and I am certain that I always meet with ſuch nerves here.

p. q. r. s More poſterior branches of the cervical nerves, which perforate the ſerratus poſticus ſuperior, the rhomboideus major and minor, and the ſacrolumbalis: p a branch of the third, q of the fourth, r of the fifth, and s of the ſixth. They afterwards likewiſe perforate the cucullaris muſcle, and become ſubcutaneous, Fig. 3.

t. u. &c. Poſterior branches of the dorſal nerves: t of the firſt, u of the ſecond, w of the third, x of the fourth, y of the fifth, z of the ſixth, A of the ſeventh, B of the eighth, C of the ninth, D of the tenth, E of the eleventh, F of the twelfth, G of the firſt of the loins, H of the ſecond, I of the third, K of the fourth.

L. M. N. O. P. Q. R. S. T. U. V. W. X. Y. Z. Γ. Δ Branches of the dorſal and lumbar nerves, paſſing through the muſcles adjacent to thoſe parts near the ſpine. Thoſe branches which are given off from the ſacrolumbales, are marked W. Y. Z.

Θ. Λ. Ξ. Π. Σ. Φ. Ψ. Ψ. Ω. Ω. α. α. β. β. γ Branches of the coſtal nerves, which penetrate the intercoſtal muſcles towards the back. Θ Of the ſixth pair, Λ. Ξ of the ſeventh, Π. Σ of the eighth, Φ. Ψ. Ψ of the ninth, Ω. Ω α. α of the tenth, β. β. γ of the eleventh.

δ. ε: δ. ε Branches of the twelfth pair of coſtal nerves, σ. σ Fig. 2. which perforate the tranſverſe muſcles of the abdomen, and then run between theſe and the internal oblique forwards.

ζ. ζ Branches of the firſt pair of lumbar nerves, υ. υ Fig. 2. which likewiſe perforate the tranſverſe muſcles, and afterwards run forwards between theſe and the internal oblique.

η A branch of the firſt of the nerves of the os ſacrum, going out at the firſt of the poſterior foramina of that bone.

θ A branch of the ſecond of the nerves of the os ſacrum, going out at the ſecond of the poſterior foramina of that bone. Here it appears how it receives a twig from a branch of the firſt, η.

ι A branch of the third of the nerves of the os ſacrum, going out at the third of the poſterior foramina of that bone.

κ A branch of the fourth of the nerves of the os ſacrum, going out at the fourth of the poſterior foramina of that bone.

λ A nerve, going out between the os ſacrum and coccygis.

μ The extremity of the cauda equina, going out at the extremity of the canal of the os ſacrum.

ν. ξ. ο. π. ϱ. σ. ς The nerves Θ. Λ. Ξ. Π. Σ. Φ. Ψ. Fig. 3. ſeem to be continuations of theſe. Query, whether ν, which is going out between the common heads of the ſacrolumbalis and longiſſimus dorſi muſcles, is the firſt branch of the nerve η cut off? and ξ, the firſt branch of the nerve θ? and ο, the firſt of the nerve ι? &c.

τ. τ The ſciatic nerves.

υ. υ Branches of the ſciatic nerves, which running between the two ligaments on each ſide of the os ſacrum belonging to the iſchia, diſtribute their branches to the fat, on the ſides of the anus.

χ. χ Branches of the ſciatics, which running under the great glutei muſcles, give off to them the branches Ψ. Ψ; then below the glutei they become ſubcutaneous Ω α. Ω α, Fig. 3. and the lopped branches ω. ω make Ω. Ω, Fig. 3. and the branches 1. 1 make α. α of the ſame figure.

Here there appears a variation of the nerves φ χ. φ χ, which ariſe on the left ſide from a common root; and alſo a variety in their branches.

2. 2 Branches of the ſciatics, going to the glutei magni.

3. 3 Branches of the ſame nerves, which ſoon dividing into two, one of them, viz. 4, belongs to the internal part of the long head of the biceps of the leg; and the other, 5, to the internal part of the ſemitendinoſus.

6. 6 Branches of the ſame, which ſend off others to the internal part of the ſemitendinoſi and ſemimembranoſi muſcles.

7. 7 Branches ſtill of the ſciatic nerves, belonging to the internal part of both heads of the bicipities muſcles of the legs.

8. 8 More branches of the ſciatics, beſtowed upon the ſhort heads of the above bicipites muſcles.

9. 9 Branches of the ſame, running to the fore-part of the thighs, and conſtituting the nerves 15. 15, Fig. 2.

10 The root of that branch which becomes ſubcutaneous at the calf of the leg, and conſtitutes ν, Fig. 3.

11. 12. 13. 14: 11. 12. 13. 14 Branches ſtill of the ſciatic nerves. Query, whether 11. 11 go to the external heads of the gemelli, &c. and 12. 12 to the internal? 13. 13 their roots, which make ξ. ξ, Fig. 3? 14. 14 to the poplitei muſcles? &c. The ſciatics certainly produce theſe nerves about the hams.

15. 15 Branches of the ſciatics, going to the tibiales poſtici.

16. 16. 16 Branches of the ſame, going to the long flexors of the toes.

17. 17. 18. 18 Other branches, going to the long flexors of the great toes.

19 A branch going to that head of the long flexor of the toes, which it receives in the ſole of the foot.

20 A branch of the ſciatic nerve, which produces the branches 21. 22. 23. 24. 25.

21 Directs it's courſe, and diſtributes it's branches, to the adductor of the great toe, the interoſſei muſcles, &c.

23 Is ſpent upon the abductor of the little toe.

24 Runs along the external ſide of the little toe.

25 Proceeds to the roots of the fourth and fifth toes, where it divides itſelf into two; one branch running upon the ſide of the fifth toe next the fourth, and the other upon the ſide of the fourth toe next the fifth.

26 A branch of the ſciatic, which runs along the inſide of the great toe, and produces the branch 27 going to the abductor of the great toe.

28 A branch, which proceeds to the root of the great toe, and of the ſecond, where it divides into two; one branch running along the ſide of the great toe, next the ſecond toe, and the other along the ſide of the ſecond toe, next the great toe.

29 Goes to the firſt lumbrical muſcle.

30 A branch, which goes to the root of the ſecond and third toes, and there dividing into two; one branch runs upon the ſide of the ſecond toe, next the third; and the other upon the ſide of the third, next the ſecond.

31 Goes to the ſecond lumbrical muſcle.

32 A branch, which runs to the root of the third and fourth toes, where it divides itſelf into two; one branch going along the ſide of the third toe, next the fourth, and the other upon the ſide of the fourth, next the third.

33 Goes to the third lumbrical muſcle.

34. 34 Branches of the fifth pair of cervical nerves, which proceed by the lunated notches of the ſcapulæ, near the proceſſus coracoidei; and then give off the branches 35. 35, which run along under the ſupraſpinati muſcles, and ſupply them with branches. Afterwards 36. 36 wind themſelves about the ſpines of the ſcapulæ, run under the infraſpinati muſcles, and give off branches to them.

37. 37 Branches of the third of the brachial nerves, 31 Fig. 2. whence ariſe the branches 38, going to the teres major, and 39 to the deltoid. Is 40 the root of the nerve φ, Fig. 3?

41 A part of the nerve 25, Fig. 2. running down between the latiſſimus dorſi and ſerratus magnus.

42 A part of the nerve 26, Fig. 2. running down between the ſame muſcles.

43. 43 The trunks of the third brachial nerves, which run behind the bones of the ſhoulder. They are the ſame with 29. 29, Fig. 2.

44. 44: 44. 44 Branches of the above trunks going to rhe external brachial muſcles; 45. 45 to the long, and 46. 46 to the ſhort.

47 Seems to be the root of the branch χ in the left arm, Fig. 3.

48. 49 Seem to be the roots of the branches 1 in the left arm, Fig. 3. Certainly that trunk gives off ſuch branches.

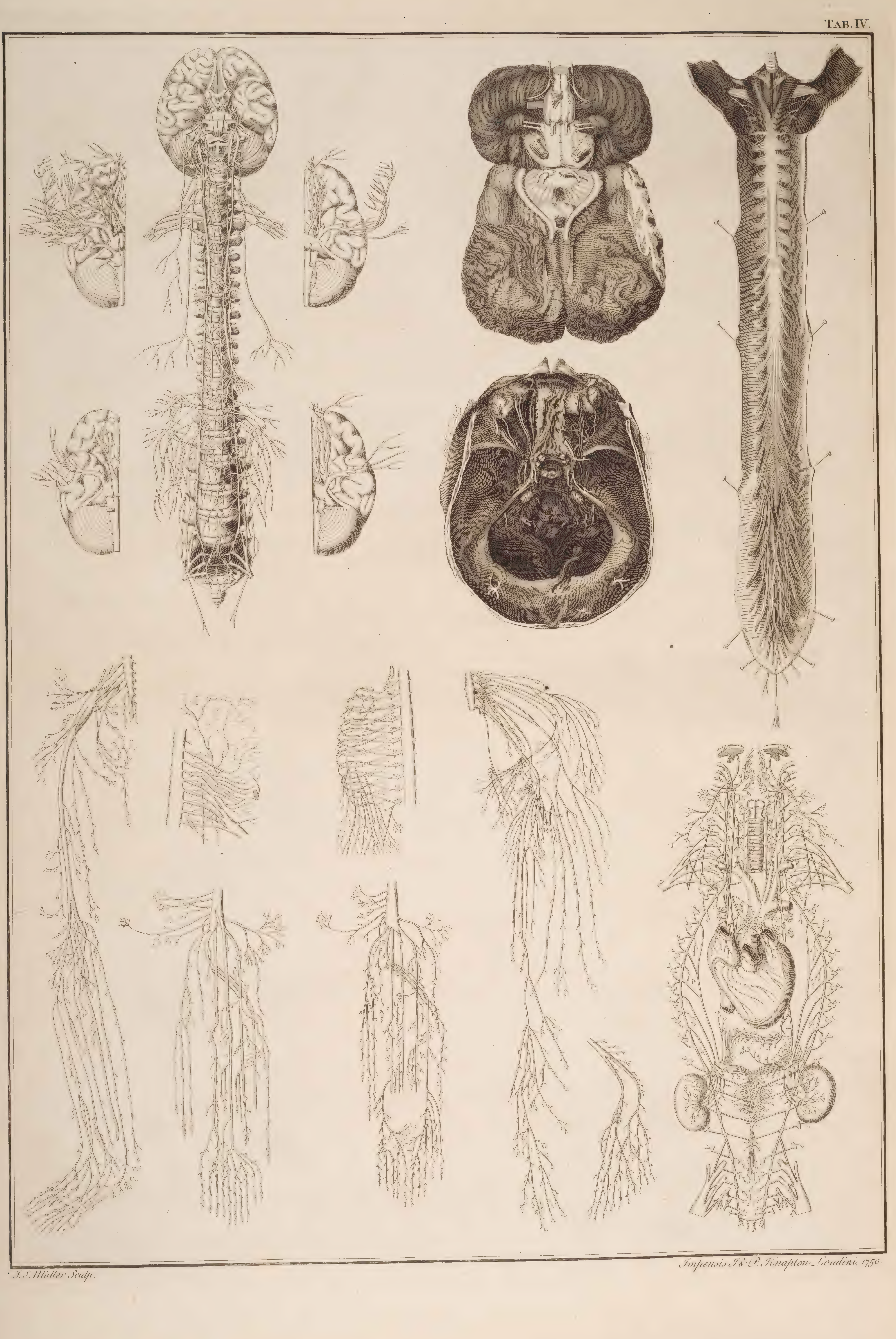
50 Seems to be the root of the branch χ in the right arm, Fig. 3.

51 This third trunk of the brachial nerves running on, makes 45, Fig. 2. 'Tis the ſame in the left arm.

52. 52 The trunks 46. 46 of the third of the brachial nerves, Fig. 2. which having perforated the ſhort ſupinator muſcles, direct their courſe to the external part of the fore-arm; where after giving off branches to the neighbouring muſcles, they make 53. 53, going under the great extenſors of the thumbs, and alſo the indicators; below which they emerge 54. 54.

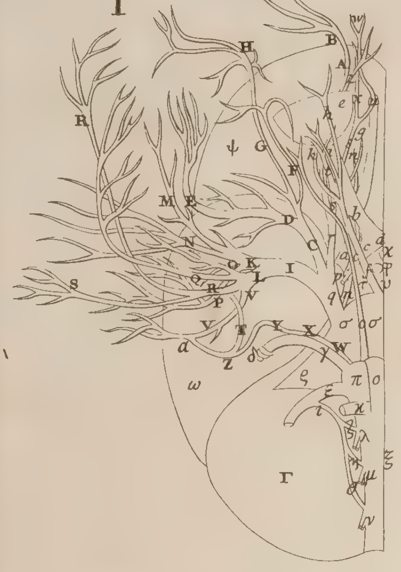
55 The fourth of the brachial nerves, 30 Fig. 2. It gives off to the profundus the branches 56. 57. 58.

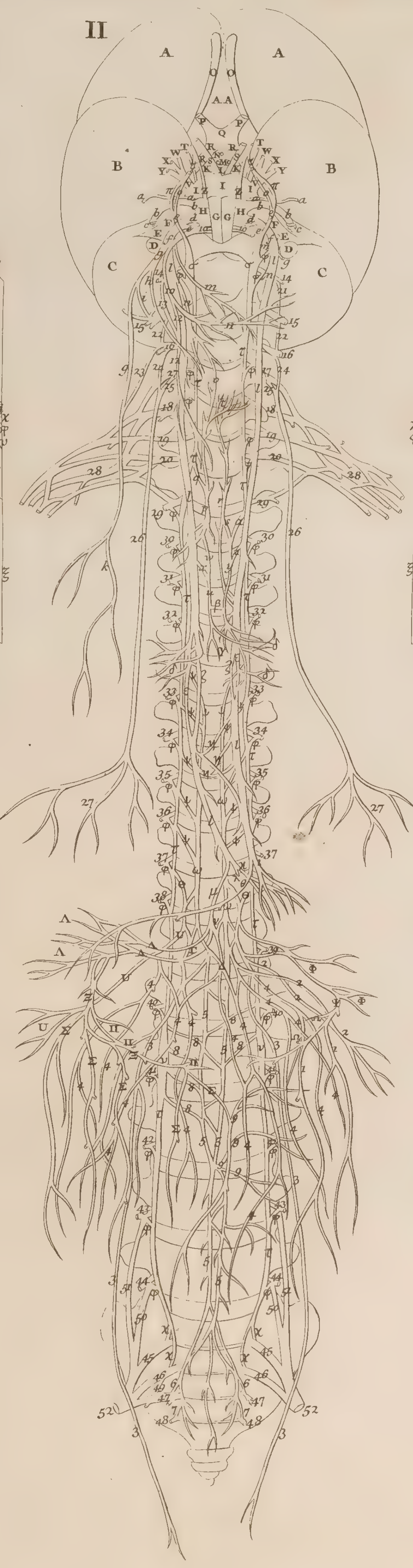
TAB. IV.

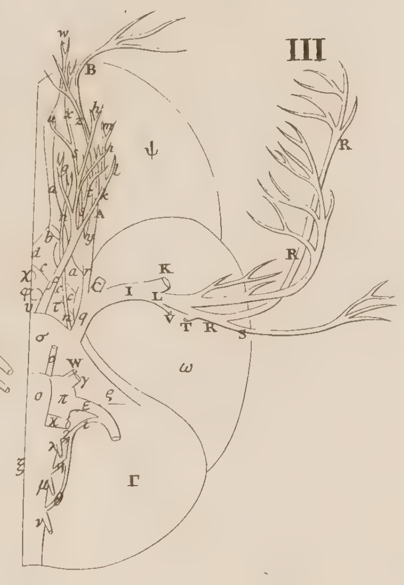


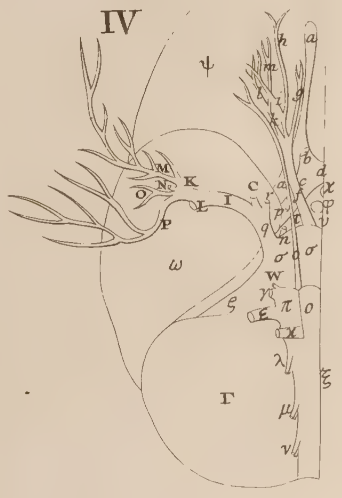
J. S. Müller Sculp.

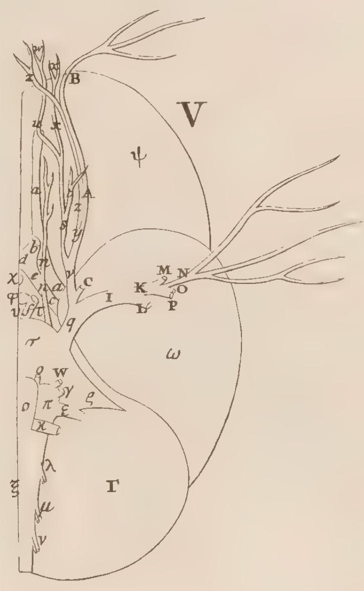
Impensis J. & P. Knapton Londini, 1750.

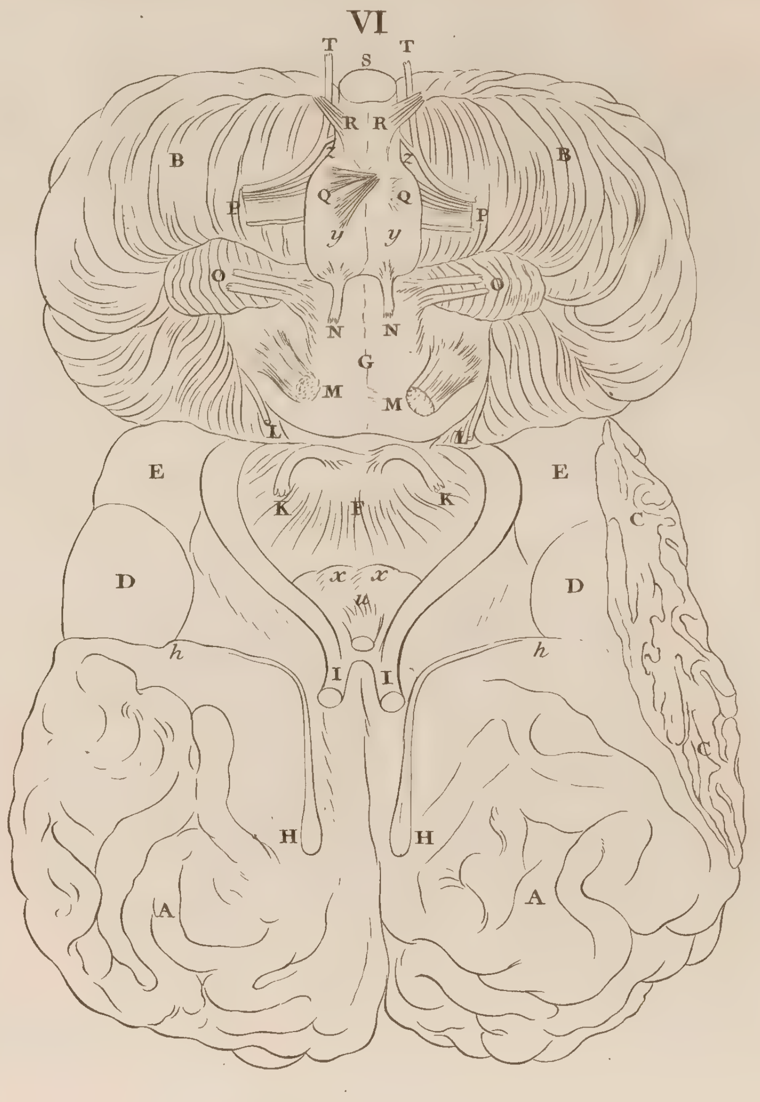
I


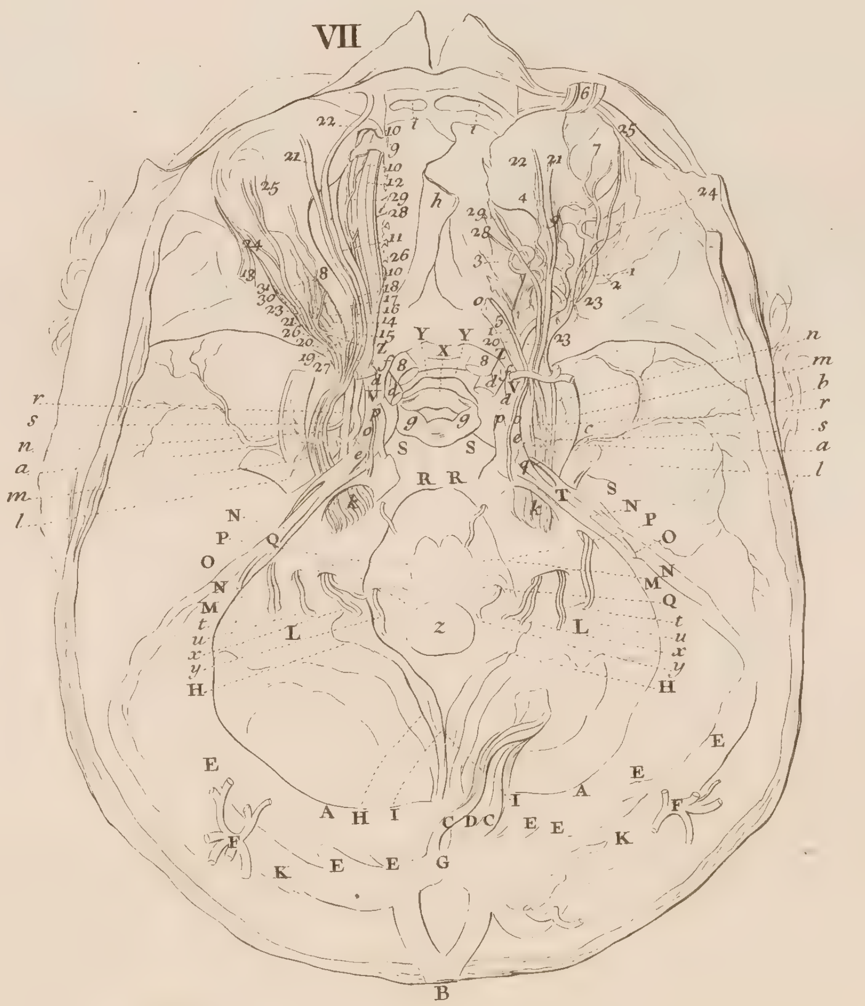
II


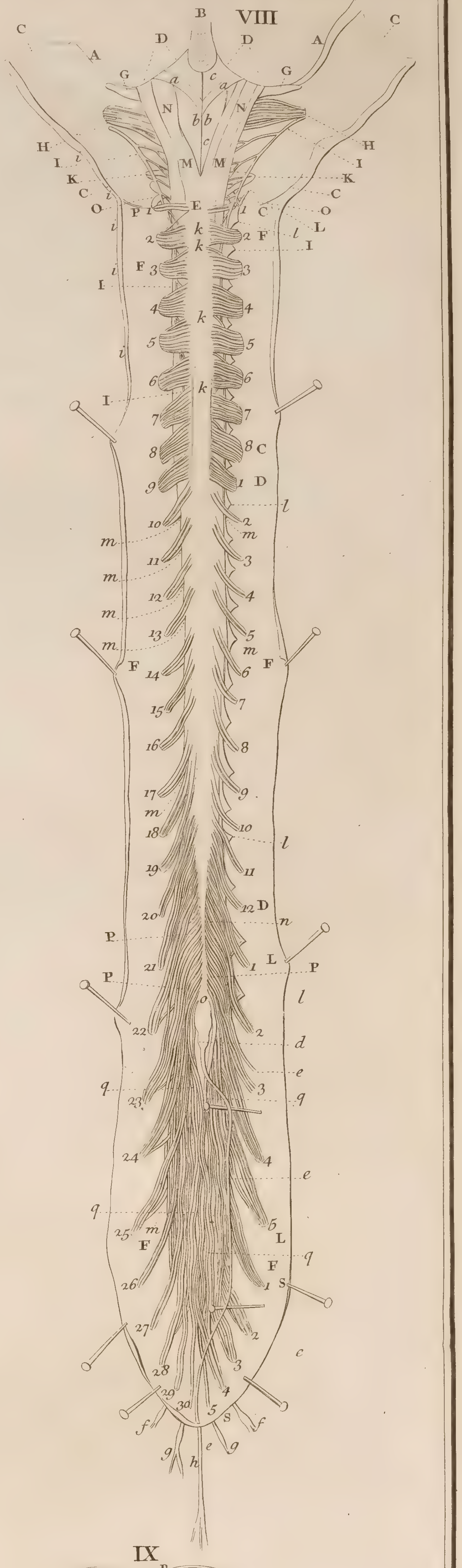
III


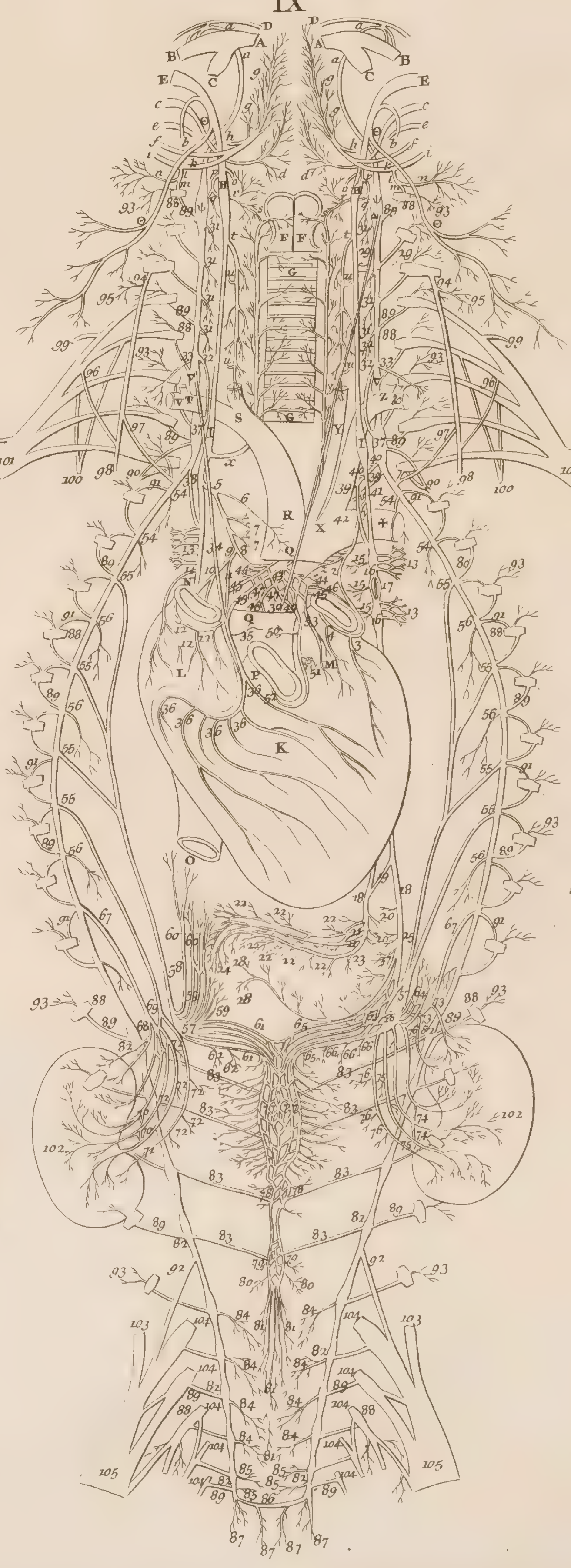
IV


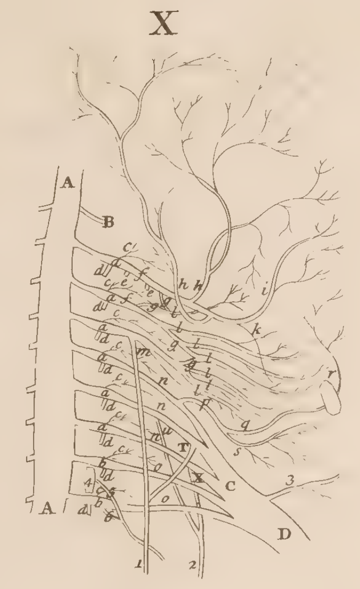
V


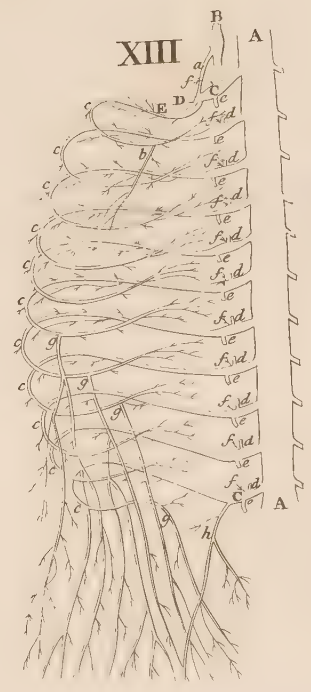
VI


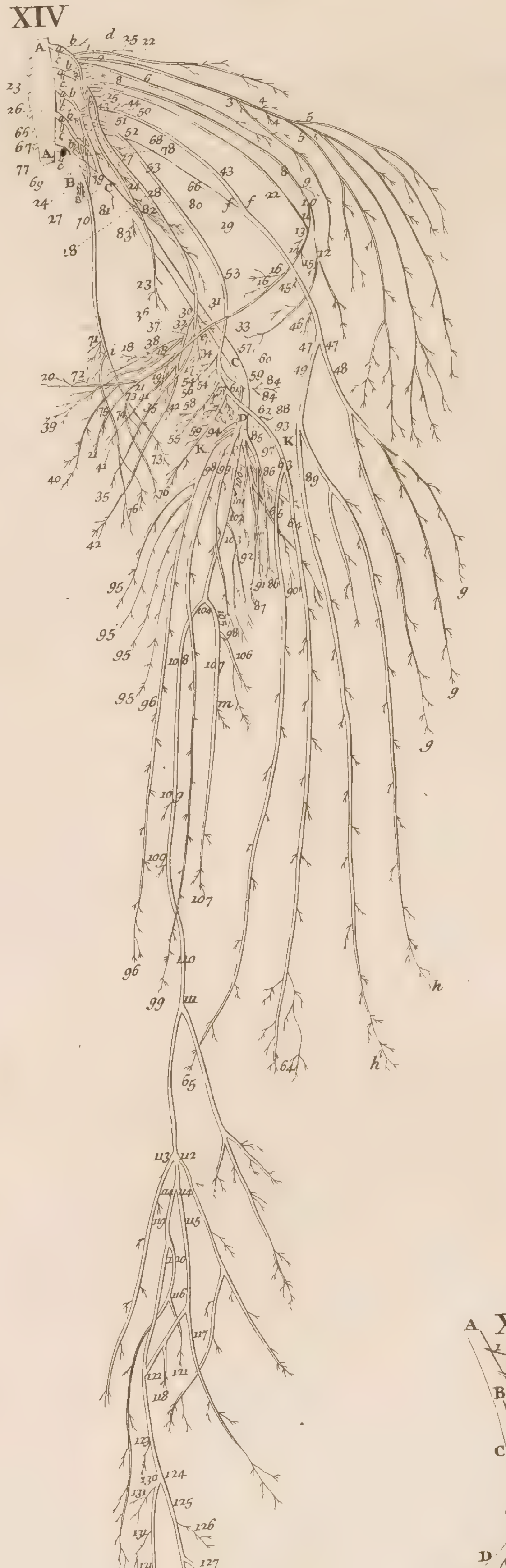
VII


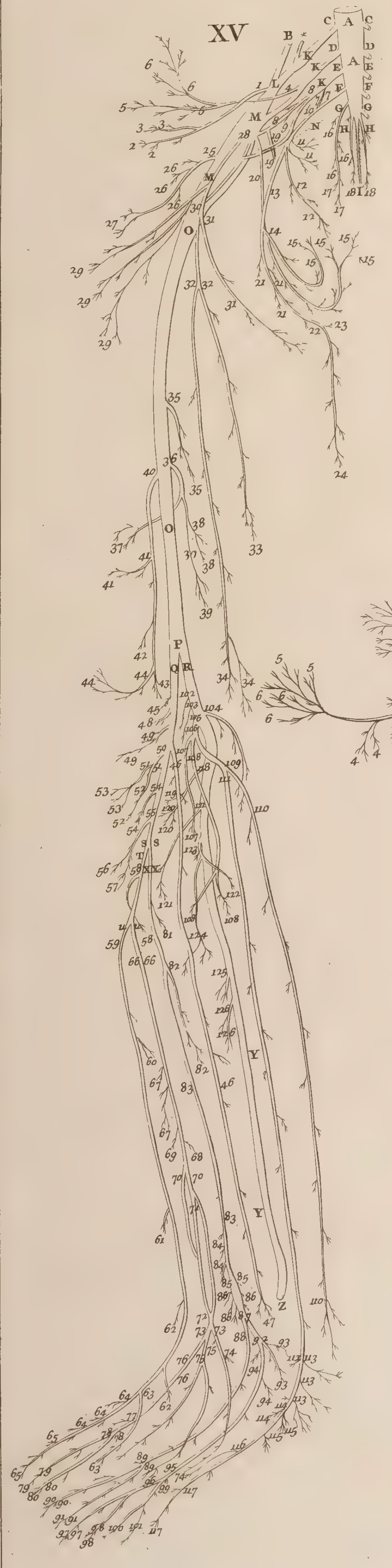
VIII


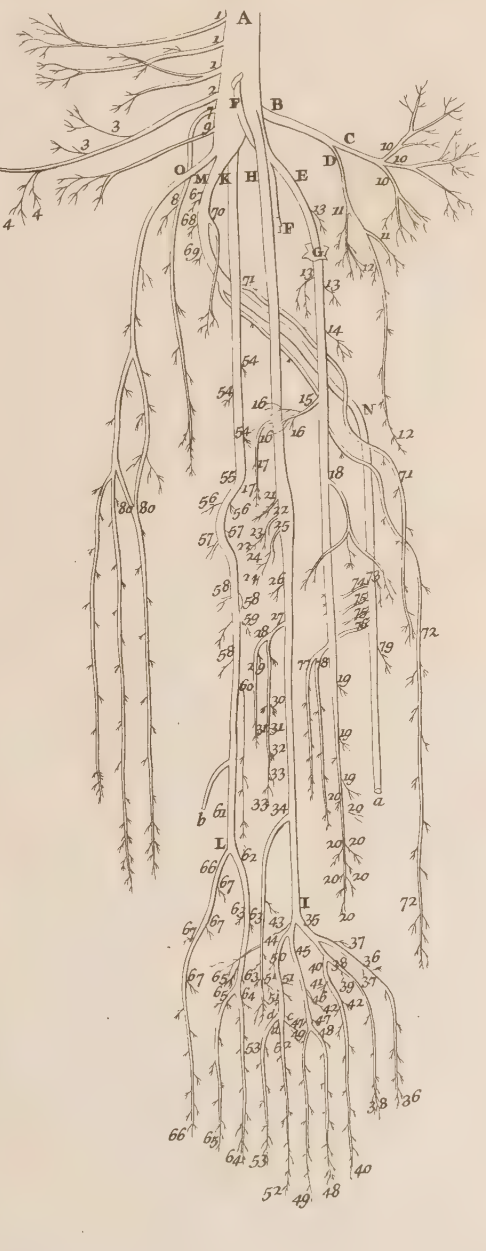
IX


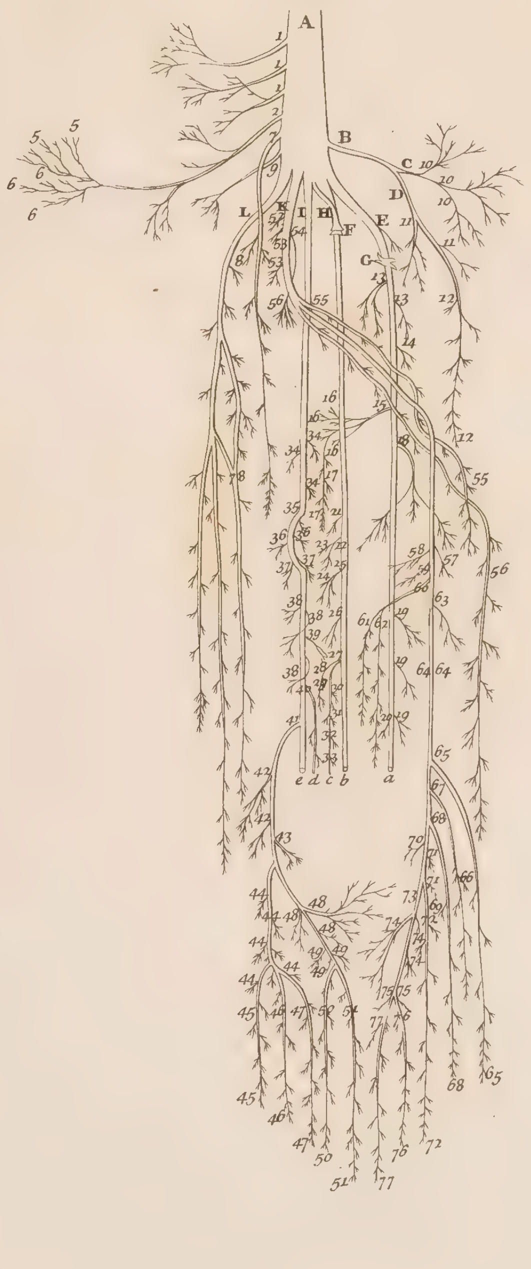
X


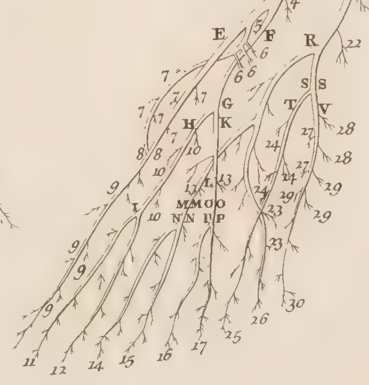
XIII


XIV


XV


XI


XII


XVI


J. S. Müller Sculp.

Impensis J. & P. Knapton Londini, 1750.

A
COMPLEAT SYSTEM
OF THE
BLOOD-VESSELS AND NERVES.

TABLE IV.

THIS table, which conſiſts of ſixteen different figures, repreſents the nerves of the particular parts, and is taken from Euſtachius, Du Verney, Haller, and Vieuſſens. The firſt five are from Euſtachius, Tab. 18. with Albinus's explanation.

FIGURE I, III, IV, and V.

Theſe four figures reſemble one another, with this difference; that in the third, fourth, and fifth, are repreſented only ſome of thoſe nerves ſeparately, which the firſt figure contains altogether. For in the third, fourth, and fifth figures, the others are cut away, in order that theſe may appear diſtinct; which in the firſt, on account of their number, cannot ſo eaſily be diſtinguiſhed.

They repreſent the baſis of the brain, with the beginning of the medulla ſpinalis, divided lengthwiſe through the middle, together with the nerves.

Figure 1. 3. 4. 5. a The proceſſus mammillaris.

1. 3. 4. 5. b. c. d The optic nerve. c That part of it which is before the conjunction of the two together. d One ſide of that conjunction, divided longitudinally through the middle.

1. e The retina.

4. 3. 1. 5. f The trunk of the third pair of nerves of the brain, called the motores oculorum, ariſing near the fore-part of the proceſſus annularis. It produces the following branches,

4. 3. 1. g Belonging to the adductor muſcle of the eye.

4. 3. 1. h To the inferior oblique.

4. 3. 1. i To the deprimens.

4. 3. 1. k Which divides into two, of which

4. 3. l The one goes to the muſculus attollens of the eye, and

4. 3. m The other belongs to the levator of the upper eye-lid.

5. 3. 1. 4. n The fourth pair of nerves of the brain, which is called the pathetic, belonging to the ſuperior oblique muſcle of the eye.

4. 1. 3. 5. o The ſixth pair of nerves of the brain, belonging to the adductor muſcle of the eye, ariſing near the fore-part of the corpus olivare and pyramidale.

1. 4. p A branch of the intercoſtal nerve, which joins it itſelf with the ſixth pair. See ξ. ξ Fig. 2.

1. 3. 4. 5. q The trunk of the fifth pair of nerves, ariſing from the ſide of the proceſſus annularis. It divides itſelf into three branches, the firſt, ſecond, and third.

5. 3. 1. 4. r The trunk of the firſt branch of the fifth pair of nerves, called the ophthalmic branch.

5. 3. 1. s A branch of the ophthalmic, which runs upon the inſide of the bony orbit, near the noſe, and produces the branches t. u. w. x. Of which does

5. 3. 1. t Belong to the ciliary nerves?

5. 3. 1. u. w Eſcapes by a ſmall foramen, at the conjunction of the os frontis with the planum, from the bony orbit to the frontal ſinus, and from thence into the cavity of the cranium; afterwards u paſſes into the noſe through a foramen of the os cribriforme.

5. 3. 1. x Goes out at the great angle of the eye, and at the root of the noſe twiſts itſelf upwards towards the forehead.

5. 3. y (The ſame in 1) the diviſion of the ophthalmic into the branches z. A. B. Of which

5. 3. 1. z Goes out to the forehead near the greater angle of the orbit.

5. 3. 1. A. B Having accompanied the branch z almoſt to the eye-brow, it goes out at a foramen in the ſuperciliary ridge of the frontal bone; and B winds itſelf upon the forehead, making a, Fig 2. Tab. 3.

1. 3. 4. 5. C The ſecond branch of the fifth pair of nerves. It produces the following branches, viz.

1. D The palatine, which ſinks firſt down by a canal, made by the upper maxillary bone and the os palati; and from thence going out E, it twiſts itſelf forwards to the palate, and runs upon it.

1. F The naſal, which gets into the poſterior part of the noſe, through a foramen which is made by the os palati and the baſis of the multiforme, at the poſterior, ſuperior, and lateral part of the noſe.

1. G The orbiter, which runs by the lower part of the orbit, and going out at the foramen below it, becomes H; winding itſelf, and diſtributing branches to the parts of the face below the eye, as is repreſented Tab. 3. Fig. 2. b.

1. 3. 4. 5. I The third branch of the fifth pair of nerves, which divides itſelf into K the anterior, and L the poſterior.

1. 3. 4. 5. K The anterior branch of the third branch of the fifth pair of of nerves produces.

4. 1. 5. M A branch, which runs upon the outſide of the buccinator muſcle.

5. 1. 4. N Going to the temporal muſcle.

4. 1. 5. O To the pterygoideus externus.

4. 1. 5. P To the maſſeter.

1. 3. 4. 5. L The poſterior branch of the third branch of the fifth pair of nerves, produces

3. 1. Q The lingual branch.

3. 1. R The maxillary, which enters the canal of the lower jaw, and runs along it.

It ſends off very few branches, or almoſt none at all. De Dent. Cap. XX.

3. 1. S A nerve, which leaves the maxillary branch R, before it enters the canal of the lower jaw, and runs by the inſide of the maxilla forwards, to the mylohyoideus muſcle, and the ſecond belly of the digaſtric, &c.

1. 3. T The chorda tympani, joined on one ſide with the maxillary branch R, and on the other with the portio dura of the ſeventh pair of nerves Z.

From another branch of the fourth pair of nerves of the ſame viſcus (viz. the brain) *is ſent off a ſmall twig, which being reflected near the bony canal I have already deſcribed, enters the cavity of the ear, in which the bones of hearing are contained, and adheres obliquely to the tympanum, and afterwards to the malleus, above the inſertion of it's muſcle; nor does it end there, but running on, it perforates the os petroſum behind the meatus auditorius; then being reflected downwards, runs on a little way, and at laſt joins itſelf with the ſmaller branch or portio dura of the fifth pair of nerves of the brain, and is firmly united with it.* De aud. org.

1. 3. V A branch of the poſterior branch L of the third branch of the fifth pair of nerves, which joins itſelf with the portio dura of the ſeventh pair.

1. 3. 4. 5. W The portio dura of the ſeventh pair of nerves, which are called the auditory, ariſing from the fore-part of the external ſide of the corpus olivare. But firſt

1. X Attending the portio mollis, runs along with it by the common canal in the os petroſum. Afterwards getting out, it bends itſelf at Y, where it is about to enter the aqueduct of Fallopius. Through this aqueduct it runs to Z, and by the way joins itſelf with the chorda tympani. After it leaves the aqueduct, it joins itſelf at α, with the branch V of the third branch of the fifth pair of nerves.

1. 3. 4. 5. γ The portio mollis of the ſeventh pair of nerves, called the auditory, ariſing from the fore-part of the corpus olivare, near the external ſide of the portio dura.

The fifth pair of nerves of the brain is by no means compoſed only of two nerves, as ſome anatomiſts imagine; but each trunk is made up of two unequal portions, of which the longeſt is hollowed, and receives the other into a groove as it were, which has not been obſerved by others; and, joined together in that manner, they run on obliquely forwards and outwards, to the extremity of a ſinus in the os petroſum, which ſeems to be made on purpoſe for them. There the leſſer branch, leaving the larger one, enters a foramen which is proper to it, and in a very extraordinary winding courſe, which it is not neceſſary at preſent to deſcribe, it gets out of the cranium. But the larger one ſeems to terminate in three different portions, at ſome diſtance from one another; the chief of which runs into a ſmall foramen, that leads into the cochlea. De aud. org.

1. δ This appears to be the cochlea, to which the portio mollis muſt belong.

1. 3. 4. 5. ε The eighth pair of nerves, ariſing by ſeveral originations from the external ſide of tne corpus olivare.

1. 3. ζ. η. θ. ι The recurrent nerve, ariſing by the three different beginnings ζ. η. θ, and ι afterwards joining itſelf with the trunk of the eighth pair.

Three branches of the ſixth pair of nerves of the brain, taking their origin from the medulla ſpinalis. Off. exam.

1. 3. 4. 5. κ The ninth pair of nerves of the brain, ariſing by different origins from the poſterior part of the external ſide of the corpus pyramidale.

1. 3. 4. 5. λ The firſt pair of ſpinal nerves.

1. 3. 4. 5. μ The ſecond pair of ſpinal nerves.

1. 3. 4. 5. ν The third pair of ſpinal nerves.

1. 3. 4. 5. ξ The medulla ſpinalis.

1. 3. 4. 5. ο The corpus pyramidale.

1. 3. 4. 5. π The corpus olivare.

1. 3. 4. 5. ϱ The medullary trunk, proceeding from the cerebellum to the medulla oblongata, and making the proceſſus annularis.

1. 3. 4. 5. σ The proceſſus annularis.

1. 3. 4. 5. τ The crura medullæ oblongatæ.

1. 3. 4. 5. υ A little ſpace, between Willis's gland, the crura medullæ oblongatæ, and the annular protuberance.

1. 3. 4. 5. φ Willis's gland, behind the infundibulum.

1. 3. 4. 5. χ A cineritious body, ſituated in the poſterior angle of the conjunction of the optic nerves, between the crura of the medulla oblongata. In it is the inferior orifice of the third ventrical of the brain, from which goes the infundibulum.

1. 3. 4. 5. ψ. ω The lobes of the brain, ψ the anterior, ω the middle lobe.

1. 3. 4. 5. Γ The cerebellum.

FIGURE II.

A A. A A. B. B The baſis of the brain. A A. A A The anterior lobes, B. B the middle ones.

C. C The baſis of the cerebellum.

D. D The extremities of the tranſverſe proceſs of the atlas.

E. E The prominent margins of thoſe cavities of the atlaſs, which receive and ſupport the coronoid proceſſes of the os occipitis.

F. F The medullary trunks, which are ſent from the cerebellum to the medulla oblongata, and make the annular protuberance.

G. G The corpora pyramidalia.

H. H The corpora olivaria.

I. I. I The annular protuberance.

K. K The crura medullæ oblongatæ.

L The little ſpace between the annular protuberance, the crura medullæ oblongatæ, and Willis's gland.

M Willis's gland, ſituated behind the infundibulum.

N A cineritious body, ſituated in the poſterior angle of the conjunction of the optic nerves, between the crura medullæ oblongatæ. In this body is the inferior orifice of the third ventricle of the brain, from which goes the infundibulum.

O. O The proceſſus mammillares.

P. P The optic nerves. Q Their conjunction.

R. R. R The ſame, before they are conjoined.

S. S The third pair of nerves of the brain, called the motores oculorum, ariſing near the anterior part of

T. T The fourth pair of nerves of the brain, called the pathetic.

V. V The fifth pair of nerves of the brain, ariſing from the ſide of the annular protuberance.

W. X. Y: W. X. Y The three branches into which it divides: W the firſt, X the ſecond, Y the third.

Z. Z The ſixth pair of nerves of the brain, ariſing near the anterior part of the corpora olivaria and pyramidalia.

a a. a a The portiones duræ of the ſeventh pair of nerves of the brain, ariſing from the fore-part of the external ſide of the corpora olivaria.

b. b The portiones molles of the ſame ſeventh pair of nerves, ariſing from the ſide of the corpora olivària, immediately behind the former.

c. c Appear to be the cochleæ, to which the portiones molles belong.

d. d The eighth pair of nerves of the brain, ariſing by different originations from the poſterior part of the external ſide of the corpora olivaria.

e. e The recurrent nerves, joining themſelves to the eighth pair of the brain.

f. f The trunks of the eighth pair of nerves of the brain, joined with the trunks of the recurrent nerves.

g. g. g The recurrent nerves, after they have left the eighth pair of the brain.

h A branch of the recurrent, which belongs to the cleidomaſtoideus and ſternomaſtoideus muſcles.

i A branch of the recurrent, which joins itſelf with the third pair of cervical nerves. Compare h Fig. 2. Tab. 3.

k The branchy extremity of the recurrent, beſtowed chiefly upon the cucullaris muſcle.

l l l. l l l The trunks of the eighth pair of nerves of the brain.

m. m The lingual branches of the eighth pair, which are principally ſpent upon the root of the tongue, and alſo upon the parts next to it of the pharynx, &c.

n. n The upper branches of the eighth pair of nerves belonging to the larynx, which run in between the os hyoides and the thyroid cartilage to the internal part of the larynx; where o joins itſelf with the laryngal recurrent, or acceſſorius of Willis.

p The right acceſſorius of Willis, or the inferior, right recurrent, ariſing by a double beginning from the eighth pair of nerves on the right ſide.

q The conjunction of the right acceſſory nerve, with the right intercoſtal.

r The left acceſſory of Willis, or the inferior, left recurrent, ariſing by a double origin from the left trunk of the eighth pair of the brain, but lower than the right.

s A nerve, which joins the left cardiac with the left acceſſory nerve.

t The branchy extremity of the acceſſory nerves, ſent to the thyroid glands, the pharynx, the arytenoid, poſterior cricoarytenoid, and thyreo-arytenoid muſcles.

u. w. x The right cardiac nerve, ariſing by a double origin; w the one from the right acceſſory nerve, x the other from the right trunk of the eight pair of the brain.

y. z. α The left cardiac nerve, ariſing likewiſe by a double origin; z the one from the left trunk of the eighth pair of nerves of the brain, α the other from the left intercoſtal nerve, as ſeems to appear from the figure.

β A nerve, by which the cardiacs are joined with one another.

γ The branchy extremity of the cardiac nerves, going to the heart and the parts belonging to it.

δ. δ. δ The pulmonary nerves, ariſing from the eighth pair.

ε. ζ: ε. ζ The diviſion of the eighth pair into two branches, which preſently unite again, and ſo form a kind of inſula, which is ſmaller on the left ſide than on the right.

η. η. η Branches by which the trunks of the eighth pair are united, both before and behind the lower part of the œſophagus.

θ A branch of the left trunk of the eighth pair, which runs upon the upper part of the ſtomach from the œſophagus to the pylorus, and gives off branches to the ſtomach, eſpecially to the fore-part of it.

ι The branchy extremity of the left trunk of the eighth pair of nerves, belonging to the fore-part of the ſtomach on the left ſide, near the lower orifice of the œſophagus.

κ The branchy extremity of the right trunk of the eighth pair of nerves, belonging to the poſterior part of the ſtomach on the left ſide, near the lower orifice of the œſophagus.

λ A branch of the right trunk of the eighth pair of nerves, which anſwers to the branch θ of the left, running after the ſame manner, and giving off branches chiefly to the back part of the ſtomach.

The ſixth pair of nerves of the brain, ſends off branches both to the orifice of the ſtomach, and to the other viſcera. De Dent. Cap. XXV.

μ The right trunk running down behind the ſtomach, and afterwards joining itſelf with the left intercoſtal nerve at ν.

ξ. ξ The upper extremity of the intercoſtal nerves, where they are joined with the ſixth pair of nerves of the brain.

ο. π : ο. π Two branches, into which the trunks of the intercoſtal nerves divide themſelves; but afterwards they unite, and ſo leave a kind of ſlit, through which paſſes the internal carotid artery, which together with thoſe branches paſſes into the cavity of the cranium, by the canal in the os petroſum.

ϱ. ϱ The trunks of the intercoſtal nerves.

σ. σ The upper cervical ganglions of the intercoſtal nerves.

τ τ τ τ τ. τ τ τ τ τ τ The trunks of the intercoſtal nerves, running down near the ſpine, along the neck, thorax, abdomen, and pelvis.

υ. υ. &c. Ganglions of the intercoſtal nerves, which are not all marked, for fear of rendering the figure obſcure.

φ. φ. φ. &c. Branches, by which the intercoſtal nerves are united with thoſe of the ſpine.

χ. χ : χ. χ The conjunction of the laſt of the intercoſtal nerves, with the firſt and ſecond trunk of thoſe which go out by the fore-part of the os ſacrum.

ψ. ψ. ψ. ψ. ψ : ψ. ψ. ψ. ψ. ψ. ψ Branches of the intercoſtal nerves, which united together, make

ω. ω. ω Remarkable trunks, which running down along the vertebræ of the back, perforate the diaphragm, and afterwards are blended and united together both of them with Γ. ν the right trunk of the eighth pair of nerves, of the brain, and with one another at Δ.

Θ. Θ Branches of the intercoſtal nerves, which unite themſelves with the branches of the trunks ω. ω.

From the trunks ω. ω of the intercoſtal nerves, the eighth pair of nerves of the brain, their branches, and conjunction, are produced the following nerves, belonging to the kidneys, the glandulæ renales, the liver, ſpleen, ſtomach, inteſtines, &c.

From that plexus of nerves, near the origins of the meſenteric arteries, ariſe ſeveral branches variouſly complicated, part of which are ſent to the liver near the entry of the vena portarum, and likewiſe to the gall-bladder, and part go to the kidneys and glandulæ renales, and not only ſpread themſelves externally upon theſe parts, but ſome of them enter the kidneys together with the arteries, and are diſtributed through their ſubſtance. De Renib. Cap. XXI.

Λ. Λ. Λ. Λ Branches going to the liver, whence a great many are likewiſe ſent off to the duodenum. The conjunction of theſe branches is alſo repreſented.

Ξ. Ξ The right gaſtro-epiploic nerve, which runs from the right ſide, along the fundus of the ſtomach, where the omentum adheres to it. It produces the branches Π. Π. Π belonging to the ſtomach, and Σ. Σ. Σ. Σ. Σ to the omentum.

U. U. U A nerve going to the right kidney, and the renal gland, as I think.

Φ. Φ Branches, which I imagine go to the ſpleen.

Ψ The left gaſtro-epiploic nerve, which runs from the left ſide, along the fundus of the ſtomach, where the omentum adheres to it, and gives off the branches Ω. Ω to the ſtomach, 1. 1. &c. to the omentum.

2. 2. 2. 2 Branches, which ſeem to me to go to the left kidney, and glandula renalis.

3. 3. 3: 3. 3. 3 Branches, which belong to the teſticles, and accompany the ſpermatic veſſels.

4. 4. 4. &c. Branches, which ſeem to me to go to the meſentery and inteſtines.

5. 5. 5. &c. Branches, which uniting together here and there, run down upon the bodies of the vertebræ of the loins and the os ſacrum, as far as the bottom of the pelvis; where they join themſelves with the branches which they ſent off, 6 with the third pair of thoſe which go out from the anterior foramina of the os ſacrum, and 7 with the fourth.

8. 8. 8. &c. Branches, which the above 5. 5 receive from the trunks of the intercoſtal nerves.

9. 9. 9. &c. Do theſe branches go to the meſocolon, and the left part of the colon?

10. 10. 10 The ninth pair of nerves of the brain, called the lingual; ariſing by ſeveral fibres from the ſide of the corpora pyramidalia.

11 The branchy termination of the trunk of the above ninth pair of nerves, diſtributed to the digaſtric muſcle of the lower jaw, the hyogloſſus, geniohyoideus, geniogloſſus, the tongue, &c.

12. 12 A conſiderable branch of the ſame ninth pair, which runs down upon the neck, and is diſtributed to the ſternothyroideus muſcle, coracohyoideus, ſternohyoideus, &c.

13 A branch, by which the ſecond of the cervical nerves is joined with the branch 12 of the ninth pair.

14. 14. &c. The cervical nerves. 14. 14 The ſecond pair, 15. 15 the third, 16. 16 the fourth, 17. 17 the fifth, 18. 18 the ſixth, 19. 19 the ſeventh, 20. 20 the eighth.

21 A branch, by which the ſecond of the cervical nerves is joined with the third.

22. 22 Branches, by which the third pair of cervical nerves is joined with the fourth.

23 A branch of the fourth pair of cervical nerves, which joins in with the recurrent. See Tab. 3. Fig. 4.

24. 25: 24. 25 The origins of the phrenic nerves: 24 ariſing from the fourth pair of cervical nerves, and 25 from the fifth.

26. 26 The phrenic nerves. The right of which runs down in a ſtreight courſe, without being turned to a ſide by the heart; but the left is turned obliquely outwards, from the oblique inclination of the heart to that ſide.

27. 27 The branchy extremity of the phrenic nerves in the diaphragm.

28. 28 The union and blending together of the four loweſt of the cervical nerves, and the firſt of the dorſal, from which are produced the brachial nerves.

29. 30. 31. 32. 33. 34. 35. 36. 37. 38: 29. 30. 31. 32. 33. 34. 35. 36. 37. 38 The dorſal nerves.

40. 41. 42. 43. 44: 40. 41. 42. 43. 44 The lumbar nerves.

45. 46. 47. 48: 45. 46. 47. 48 The nerves of the os ſacrum.

49 A branch, by which the ſecond of the ſacral nerves is joined with the third.

50. 50: 51. 51 Nerves; 50. 50 from the laſt of the lumbars, 51. 51 from the fourth; which being united together, join in with the firſt pair of ſacral nerves, three on the right ſide, and four on the left, to form the ſciatics.

52. 52 The ſciatic nerves.

I have put no marks upon the vertebræ and their ligaments, nor on the os ſacrum and coccygis; both as they are ſufficiently diſtinguiſhed at firſt ſight, and the figure is rather too full of marks already.

FIGURE VI.

This figure is taken from Du Verney's treatiſe De Organo Auditus (Tab. 11. *Fig.* 1.) *and repreſents the baſis of the human brain, cleared of all the blood-veſſels, in order to ſhew the origin of the ten pair of nerves, which come from the medulla oblongata. Here all that part of the ſubſtance of the brain, which Willis calls it's poſterior limbi, is cut off; that is, the inciſion was carried through that part, where the great lateral branch of the carotid artery runs through the ſubſtance of the brain, in the interſtice of it's limbi. This inciſion is of uſe for diſplaying the true origin of the firſt of the nerves, and placing the cerebellum, which when the brain is inverted, reſts upon it's poſterior limbi, in the ſame plane with the brain itſelf; which was abſolutely neceſſary, in order to expoſe to view the true figure of the medulla oblongata, and the origin of all the nerves which take their riſe from it.*

A. A The anterior ſurface of the brain inverted.

B. B The cerebellum.

C. C The place where a part of the brain is cut away, which is only repreſented on one ſide, but ought to be conceived as done in the ſame manner on the other.

D. D The *corpora ſtriata*, or according to others *tubulata*, which conſtitute the beginnings of the medulla oblongata. Their inferior ſurface is here repreſented, and a certain portion of them is cut away with the brain.

E. E The thalami nervorum opticorum.

F The medulla oblongata, the two crura of which are here united, though Willis has deſcribed them ſeparate, and at ſome diſtance from one another.

G The proceſſus annularis.

H. H The firſt pair of nerves, or the *olfactory*; ariſing from the baſis of the *corpora ſtriata*, by a kind of medullary cord h. h, which grows thicker where it is bended near the optic nerves.

I. I The ſecond pair of nerves, or the *optic*, as they appear from their origin to their egreſs through the cranium.

K. K The third pair of nerves, called the *oculorum motores*.

L. L The fourth pair, or the *pathetic*.

M. M The fifth pair.

N. N The ſixth.

O. O The ſeventh, or the *auditory*; divided at it's origin into two branches, of which the larger and upper one is called the *portio mollis*.

P. P The eighth pair of nerves, ariſing from the medulla under the prominences marked y. y.

Q. Q The ninth pair, which are only repreſented on one ſide, and turned back, that the figure might not be obſcured. On the other ſide their origin only is marked.

R. R The tenth pair of the *medulla oblongata*, which Willis has confounded with the firſt of the ſpinal nerves.

S The medulla cut off, where it begins to enter the vertebræ.

T. T Two nerves, which ariſe from the *medulla ſpinalis* within the vertebræ of the neck, and climb up to the brain to be joined with the eighth pair.

U The infundibulum.

X. X Two medullary prominences, which Willis took for glands.

Y. Y Other two medullary prominences, reſembling the figure of an olive, which the ſame author has called the *corpora pyramidalia*.

Z. Z Two ſmall nervous twigs, ariſing from the medulla oblongata, and united with thoſe nerves of the ſpine which run up to join the eighth pair. Sometimes there are two or three of theſe little nervous twigs on each ſide.

FIGURE VII.

The chief intention of this figure is to repreſent the egreſs of the nerves, ariſing from the brain. Though there are ſeveral parts beſides belonging to that viſcus, ſuch as ſinuſes and arteries, which are here repreſented. It is taken from Haller, Faſcicul. Anat. 1. *Tab.* 6.

A. A The tranſverſe proceſſes of the dura mater.

B The *longitudinal* ſinus of the dura mater, it's poſterior extremity bifurcated.

C The *fourth* ſinus bifurcated, having one crus inſerted into the right tranſverſe ſinus, and the other into the left.

D The remains of the falx of the brain.

E. E The great veins of the tranſverſe proceſſes of the dura mater.

F Veins opening into the tranſverſe ſinuſes of the brain, in the tentorium cerebelli, which conſtantly appear.

G The orifice of the *poſterior occipital* ſinus.

H. H The right and left poſterior occipital ſinuſes, with their crura opening into the foſſæ jugulares.

I The falx of the cerebellum.

K. K The *great tranſverſe* ſinuſes.

L. L The foſſæ jugulares.

M. M The *inferior petrous* ſinuſes, opening into theſe foſſæ.

N. N The *ſuperior petrous* ſinuſes.

O. O The *vena cerebelli*, opening into theſe ſinuſes.

P. P The *anterior*, *inferior*, *occipital* ſinuſes, not conſtant.

Q. Q Their extremity going out with the ninth pair of nerves.

R. R The *anterior and ſuperior occipital* ſinus, conſtant.

S. S It's anaſtomoſis with the receptacula cavernoſa and the circular ſinus.

T The mouth of the ſuperior petrous ſinus, opening into the cavernous.

V. V The receptacles, or *cavernous ſinuſes*.

X. X The *tranſverſe* ſinus of the *ſella turcica*.

Y. Y *Ridley's circular* ſinus.

Z. Z The *anterior* veins of the *brain*, opening into the cavernous ſinuſes, conſtant.

a. a The principal artery of the dura mater.

b. b The vein correſponding to it.

c The place where it paſſes through the cranium by a foramen proper to it.

d. d The *carotid* arteries in the receptacle, their extremities cut off, where they enter the brain.

e. e A ſmall artery ſent off in the receptacle, to go to the fifth pair of nerves.

f. f The origin of the ophthalmic artery from the carotid.

g. g The poſterior clinoid proceſſes, which are angular.

h The criſta galli.

i. i The frontal ſinuſes.

k. k The *fifth* pair of nerves, paſſing through the dura mater.

l The third branch of the *fifth* pair of nerves.

m The ſecond branch of the ſame *fifth* pair.

n The firſt branch of the *ophthalmic.*

o The *fourth* pair of nerves.

p The trunk of the *third* pair.

q A partition ſeparating the *fifth* from the *ſixth* pair of nerves.

r The *ſixth* pair.

s The origin of the *intercoſtal* nerve.

t. t The entry of the *ſeventh* pair into the dura mater.

u. u The firſt roots of the *eighth* pair.

x. x The ſecond root of the *eighth* pair.

y. y The ninth pair of nerves.

z The foramen of the medulla ſpinalis.

In the right eye.

After the bony orbit and a great part of the cheek bone has been taken away.

1. 1 The *ophthalmic* artery.

2. 2 It's exterior or lachrymal branch, which accompanies the nerve of the ſame name.

3. 3 It's interior branch, which is ſent to the noſe.

4. 4 Branches going to the tunica ſclerotica, ſome of which paſs on to the uvea.

5. 5 Portions of the levators of the eye-lid and of the eye.

6 The extremity of the levator of the eye-lid.

7 The *lachrymal* gland.

8 The *optic* nerve.

20. 21. 22. 23. 24. 25. 26. 27. 28. 29 The ſame as in the other eye.

In the left eye.

9 The *trochlea.*

10 The muſcle called *pathetic.*

11 The levator muſcle of the eye.

12 The *internal* muſcle of the eye.

13 The abductor, cut away.

14 The *ſuperior* branch of the *third pair* of nerves, going to the levators of the eye, and of the eye-lid.

15 The remaining trunk of the *third pair.*

16 The *exterior* branch, going to the inferior oblique muſcle.

17 The *middle* one, going to the inferior ſtreight muſcle.

18 The *interior* one, going to the internal ſtreight muſcle.

19 A branch going to the ophthalmic *ganglion.*

20 The *ſuperior* branch of the firſt branch of the fifth pair of nerves.

21 The *exterior* twig of the ſame branch.

22 The *interior.*

23 The *exterior* branch of the fifth branch of the fifth pair of nerves.

24 Small branches going out to the face by foramina in the cheek bone.

25 Small branches going to the lachrymal gland.

26 The *inferior* branch of the firſt branch of the fifth pair.

27 A twig of the ſame, going to the *ganglion.*

28 A ſmall branch going to the *noſe.*

29 A ſmall trunk creeping forwards.

30 The *ophthalmic* ganglion.

31 The ſmall ciliary nerves.

7. 8 The ſame as in the right eye.

FIGURE VIII.

This figure is taken from Haller (faſcic. Anat. 1. Tab. 2. Fig. 2.) and repreſents a back view of the lower part of the medulla oblongata, placed in the baſis of the cranium, and the whole ſpinal marrow produced from it, in it's natural ſituation and connection within the ſheath of the vertebræ, (which ſheath however does not come in ſight) and freed from all it's involucra, except the pia mater. Here it is to be remarked, that the poſterior part of the os occipitis, as far as the paſſage of the vertebral artery, and the nerve which attends it, as alſo the back part of the vertebræ, is taken away; but the anterior part of the os occipitis and os petroſum, may be viewed a little raiſed, and inclined backwards. The lobes however of the cerebellum with their vermiform proceſs are inclined forwards, in order that the fourth ventricle, and the parts contiguous to it, may be ſeen more diſtinctly.

A. A That ſpace which contains the lobes of the cerebellum turned forwards, together with

B Their vermiform proceſs faintly delineated.

C. C. C. C Portions of the os petroſum and os occipitis, covered with the dura mater.

D. D Part of the medulla oblongata, from which the medulla ſpinalis is continued downwards.

a. a White medullary ſtriæ, ariſing from the ſulcus of the fourth ventricle, and going out on each ſide to the portio mollis of the ſeventh pair of nerves.

b. b The fourth ventricle.

c. c It's longitudinal ſulcus continued into the chink of the calamus ſcriptorius.

E. E The medulla ſpinalis.

d Two eminences of the medulla ſpinalis, into which the lower extremity of it terminates. They are almoſt round, entirely ſmooth, and ſend off no nervous filaments.

e. e A ligament, produced from the lowermoſt border of the pia mater, together with blood-veſſels, which are not here repreſented, running along the middle of the cauda equina, to the extremity of it, and lower, and ſo reſembling an azygous or ſolitary nerve, which at laſt diſperſes itſelf in the os coccygis. It is ſupported by little pins, that you might have the clearer view of it.

f. f The ganglion of the twenty-ninth pair of nerves.

g. g The ganglion of the thirtieth pair, from which on the left ſide, beſides the nerve which is proper to it, there goes out another ſmall nerve marked h, which forms likewiſe a kind of ganglion proper to itſelf.

F. F The ſheath of the medulla ſpinalis produced from the dura mater, here cut through the middle, and pinned back on each ſide.

G. G The ſeventh pair of nerves.

H. H The eighth pair, which paſs through a double foramen in the dura mater on the right ſide, and through a ſingle one on the left.

I. I The acceſſory nerve from it's firſt origin between the poſterior filaments of the ſixth and ſeventh pair, which is more diſtinctly expreſſed in the left ſide than in the right, as far as it's egreſs through the dura mater. In the left ſide it paſſes through a hole in the dura mater that is proper to itſelf; but on the right it paſſes together with the lower filaments of the eighth pair of nerves. The portions of this nerve which are covered with nervous filaments, are marked with ſmall points. On the ſide

i. i Are it's little roots, of which four are filamentous, ariſing from the medulla oblongata, and ſix ariſe diſtinct, from the medulla ſpinalis; part of them very conſpicuous, and part of them likewiſe covered with nervous filaments, where they are marked with ſmall points.

k. k The communicating nervous filaments, paſſing obliquely from the loweſt filaments of one nerve to the higheſt of the other; where it is to be remarked, that they are not ſufficiently well expreſſed, becauſe that portion of each of them which runs along with the nerve next above, is not expoſed to view, but only the communicating twig.

K. K The ninth or laſt pair of nerves of the brain, conſiſting of four different filaments on each ſide. Thoſe on the right ſide unite, and paſs through a common hole of the dura mater; but on the left they paſs through two diſtinct holes, at a little diſtance from one another.

L The origin of the denticulated ligament, or it's firſt adheſion to the dura mater, from which downwards all it's tooth-like proceſſes are viewed in their proper order l. l inſerted into the dura mater at the interſtices between the nerves; but they are only repreſented on one ſide.

M. M The corpora pyramidalia poſtica } in ſome meaſure repreſented.
N. N The corpora olivaria poſtica }

O. O The vertebral arteries going out at their proper foramina with the nerve 1. P (1. C.)

m. m Nervous filaments coming from the fore-part of the medulla, and with others from behind, paſſing through the holes of the dura mater. They are expoſed to view here and there, but not perfectly 23).

n The place where the nervous filaments begin to run together, and where the baſis of the cauda equina is formed. There the remaining portion of the medulla ceaſes to appear in it's natural ſituation.

o The place where the nervous filaments ceaſe to ariſe.

p. p The origin of the filaments 24, which compoſe the cauda equina, and ariſe from the medulla ſpinalis. Theſe filaments are turned a little back on each ſide, in order that the nature and figure of the medulla lying in the middle might be ſufficiently diſplayed.

q. q. q The cauda equina.

1 as far as 30. The poſterior origins of the thirty pair of vertebral nerves, together with their exits through the dura mater.

1. C to 8. C The nervous filaments of the eighth pair of cervical nerves. Obſerve, that there are two filaments of the firſt pair of nerves on the right ſide, blended with the acceſſory nerve, from which, a little higher up, at the place of the poſterior origin of the firſt pair, a filament goes to the foramen of the vertebral artery 25).

1. D to 12. D The twelfth pair of dorſal nerves.

1. L to 5. L The five pair of lumbar nerves.

1. S to 5. S The five pair of ſacral nerves.

The eight following figures are all taken from Vieuſſens's Neurographia Univerſalis, reduced to a leſſer ſcale, and repreſent a compleat ſyſtem of the nerves which ariſe from the medulla ſpinalis, and are diſtributed to the various parts of the body.

FIGURE XI.

This figure (which makes Tab. 29. of Vieuſſens) repreſents the diſtribution of the eighth pair of nerves, and of the two intercoſtals.

A The trunk of the fifth pair of nerves.

B The large anterior branch of the fifth pair.

C The large poſterior branch of the ſame fifth pair.

D The trunk of the ſixth pair.

a. a The trunk of the intercoſtal nerve.

E The trunk of the eighth pair.

b The acceſſory nerve, which at it's going out of the cranium, is included in the ſame common coat with the nerve of the eighth pair, and therefore ſeems to be blended with it. But preſently after it has got out, it parts from the other, to run on to Θ. Θ. Θ.

c The ninth pair of nerves.

d Branches of the ninth pair, which are beſtowed upon the glands behind the maxillæ.

e The tenth pair of nerves.

f A branch of the fifth pair, which is diſtributed to the tongue, except thoſe twigs of it g. g. g, which are beſtowed upon the maxillary glands.

h A branch of the portio dura of the ſeventh pair, which unites itſelf with the branch f of the fifth pair, and together with it is diſtributed through the tongue.

i The firſt pair of cervical nerves.

k A ſmall branch of the firſt pair of cervical nerves, which unites itſelf with the branch f of the above fifth pair, and together with it is diſtributed through the tongue.

l A ſmall branch of the ſame firſt pair of cervical nerves, of which the twig m is united with the ſecond pair of cervicals. But the twig n is beſtowed upon the oblique muſcles of the head.

o A ſmall twig, by the interpoſition of which a communication is made between the eighth pair and the portio dura of the ſeventh.

p A branch of the eighth pair, of which the twig q is united with the upper cervical gangliform plexus of the intercoſtal nerve, and afterwards is inſerted into the long muſcle of the neck. But the twig r beſtows it's fibrils upon ſome of the muſcles of the larynx, pharynx, and os hyoidis, as was mentioned above, in deſcribing the eighth pair.

s A twig of the branch p, repreſented here a little thicker in proportion than it naturally is, and united with the recurrent nerve.

F. F The thyroid cartilage, making the fore-part of the trachea.

G. G The trachea cut tranſverſly, a little above the lungs.

H The cervical gangliform plexus of the eighth pair of nerves, to which a branch of the firſt pair of cervicals ſends off a twig.

t A branch of the eighth pair, of which the twigs u. u here cut off, are joined with the ſecond pair of cervicals, and the reſt are beſtowed upon the ſcalenus, maſtoideus, coracohyoideus, ſternohyoideus, and ſternothyroideus muſcles, and to the neighbouring teguments, excepting ſome which twiſt round the veſſels of the neck, eſpecially the jugular veins, and terminate in the neighbouring membranes.

I The gangliform thoracic plexus of the eighth pair of nerves.

x The right recurrent nerve.

y A branch of the eighth pair on the left ſide, which beſides ſending off the left recurrent nerve, diſtributes the twig z to the upper cardiac plexus, and the twig 2 to the heart, and it's left auricle.

3 A twig of the one 2, which is ſpent upon the heart, towards the left ſide.

4 Another twig of the ſame, which is diſtributed to the left auricle.

5 A branch of the eighth pair on the right ſide, which ſends off the twig 6 to the coats of the aorta.

7. 7 Twigs of the branch 5 cut off, which are ſpent upon the internal ſubſtance of the lungs.

8 A twig of the ſame branch 5, which terminates in the upper cardiac plexus.

9 The trunk of the branch 5, of which the twig 10 is inſerted into the right ſide of the pericardium, behind the heart; but the twig 11 ſurrounds the deſcending vena cava in the form of a ring, where it opens into the upper part of the right auricle of the heart, and terminates in it, after ſending off the twigs 12. 12. 12 to the abovesaid right auricle.

13. 13 Branches of the eighth pair of nerves, whoſe twigs, which are here repreſented cut off, being complicated together, form the pulmonary plexuſes.

14 A twig of the eighth pair on the right ſide, which is beſtowed upon the left auricle of the heart.

15. 15. 15 Twigs of the eighth pair on the left ſide, beſtowed partly upon the coats of the œſophagus, and partly upon the heart.

16. 16 Two ſmall gangliform plexuſes, which are ſometimes obſerved in the left trunk of the eighth pair.

17 The diviſion of the left trunk of the eighth pair into three branches, which preſently unite again into the ſame trunk.

18. 18 The eighth pair of nerves emerging behind the heart, and communicating together by means of the branch 19.

20. 20 Twigs of the eighth pair, which are ſpent upon the upper orifice of the ſtomach.

21. 21 Three branches of the eighth pair on the right ſide, communicating with one another, which after ſending off the twigs 22. 22. 22. 22. &c. to the upper and back part of the ſtomach, are joined towards the pylorus, with ſome ſmall twigs from the right gangliform ſemilunar plexus, and together with theſe form the hepatic plexus 60. 60.

23 A ſmall branch of the eighth pair on the right ſide, the twigs of which are ſent to the upper and fore-part of the ſtomach, except thoſe 24, which terminate partly in the pylorus, partly in the pancreas, and in the biliary ducts of the liver.

25 The left trunk of the eighth pair, here repreſented a little ſmaller in proportion than is natural; which being divided into ſeveral branches below the diaphragm, and united with the twigs 26, going from the left ſemilunar gangliform plexus, together with theſe forms the ſtomachic plexus, and at laſt terminates in the meſenteric plexuſes.

27 A branch of the eighth pair on the left ſide, which I call the interior branch. This ſends it's twigs to the lower part of the ſtomach, excepting thoſe 28. 28, which terminate in the pylorus.

K The anterior ſurface of the heart, freed from the pericardium and blood-veſſels.

L The right auricle of the heart.

M The left auricle.

N The deſcending vena cava, cut away near the right auricle.

O The aſcending vena cava, cut off a little above the diaphragm.

P The pulmonary artery, cut off near it's origin.

Q. Q The trunk of the aorta divided into two, repreſented a little ſeparated from each other, in order to allow the upper cardiac plexus, interpoſed between the aorta and the trachea, to appear.

R The right branch of the aſcending trunk of the aorta.

S The origin of the right carotid artery, which is here cut off.

T The origin of the right vertebral artery, here likewiſe cut off.

V The right vertebral artery cut off.

X The left branch of the aſcending aorta, which immediateley divides into two ſmaller ones; the interior and leſſer of which Y, forms the left carotid artery, while the exterior and larger, terminates in the left vertebral artery Z, and in the left axillary artery, &c.

+ The deſcending trunk of the aorta.

Ψ The upper cervical gangliform plexus of the intercoſtal nerve.

Δ A ſmall nerve emerging from the upper cervical gangliform plexus of the left intercoſtal, which by means of two twigs 29. 29, communicates with the eighth pair of nerves on the left ſide, and running downwards, it reaches to the anterior part of the pericardium, and is ſpread out upon it.

30 The above nerve Δ cut off near the baſis of the heart.

31. 31. 31. 31 Twigs of the intercoſtal nerve, which are ſpent upon the muſcles of the neck, viz. the longus and ſcalenus.

32 A ſmall branch of the intercoſtal nerve, which is inſerted into the gangliform thoracic plexus.

33 A twig of the intercoſtal nerve, which twiſts round the external jugular vein, and terminates in the neighbouring membranes.

∇ The inferior gangliform cervical plexus of the intercoſtal nerve.

34 A ſmall branch, ariſing from the inferior gangliform cervical plexus of the right intercoſtal nerve, which running downwards, perforates the pericardium, after which receiving a ſmall nerve from the upper cardiac plexus, it ſends off the twig 35 to the coats of the aorta, and at laſt climbing over the trunk of the pulmonary artery, it divides into the twigs 36. 36. 36. &c. which run upon the fore-part of the heart.

37 The thoracic gangliform plexus of the intercoſtal nerve.

38 A ſmall nerve emerging from the lower part of the thoracic gangliform plexus of the right intercoſtal, which is inſerted into the eighth pair on the right ſide.

39. 39 Two ſmall branches going from the lower part of the thoracic gangliform plexus of the left intercoſtal, the upper of which ſends off three twigs, of which the higheſt 40. 40 here cut off, are diſtributed to the œſophagus and the trachea arteria, while the third 42 joins in with the left trunk of the eighth pair of nerves. The lower branch 39 ſends the twig 41, which is here cut off, to the œſophagus; and at laſt the two branches 39. 39, having ſent off the above-mentioned twigs, bend in towards the middle of the breaſt, and as ſoon as they have reached the back part of the aorta, they are divided into ſeveral ſmaller ones communicating with one another, and together with ſome twigs of the eighth pair, with which they are blended, they form a remarkable nervous plexus 43.

43 The upper cardiac plexus, which is much larger than the lower.

44. 44. 44. 44 Twigs emerging from each ſide of the upper cardiac plexus, which are diſtributed through the internal ſubſtance of the lungs, and the glands in the upper part of them, ſituated behind the trachea.

45. 45. 45 Twigs going out from the upper cardiac plexus, which as well as thoſe 44. 44. &c. are repreſented cut away, and are ſpent upon the pericardium.

* A ſmall nerve emerging from the right ſide of the upper cardiac plexus, which joins in with the ſlender branch 34, and together with it is ſent to the fore-part of the heart.

46 A twig going from the left ſide of the upper cardiac plexus, which unites itſelf with the twig 2 of the branch y.

47. 47 Small branches going out from the upper cardiac plexus, which are ſpent upon the coats of the aorta.

48 Branches going from the lower part of the upper cardiac plexus, which are beſtowed upon the back part of the pericardium, and the region of the heart.

49 Two ſmall branches going likewiſe from the lower part of the upper cardiac plexus, and uniting together, which after ſending off the twig 50 to the coats of the aorta, form the lower cardiac plexus 51, and at laſt with their extremities 52, ſurround the pulmonary artery in the manner of a ring.

53 A ſmall branch going from the upper cardiac plexus, which is diſtributed to the left auricle of the heart, and is joined with the twig 4 of the ſmall nerve 2.

54. 54 Twigs ariſing from the interior ſide of the intercoſtal nerve, and diſtributed to the membranes upon the vertebræ of the back.

55. 55. 55. &c. Twigs ariſing from the ſame interior ſide of the intercoſtal nerve, and going to the gangliform ſemilunar plexus 57 on each ſide.

56. 56. 56. 56 Twigs of the intercoſtal nerve, which together with the others 54. 54, terminate in the membranes lining the vertebræ of the back.

57 The ſemilunar gangliform plexus of the intercoſtal nerve.

58 A ſmall branch ſent from the ſemilunar gangliform plexus of the right intercoſtal, which running upwards, is beſtowed partly upon the fleſhy, and partly upon the tendinous ſubſtance of the diaphragm.

59. 59 Twigs ariſing from the upper part of the ſemilunar gangliform plexus of the right intercoſtal, of which the three lower and ſmaller are beſtowed upon the gall-bladder, the biliary ducts, the pylorus, duodenum and pancreas; and the three upper, uniting together, terminate in the hepatic plexus.

60. 60 The hepatic plexus, produced from the right intercoſtal nerve, and the right trunk of the eighth pair.

61. 61 Twigs ſent from the lower part of the ſemilunar gangliform plexus of the right intercoſtal nerve, which terminate in the menſenteric plexuſes.

62. 62 Nervous filaments, which are ſpread upon the membranes lining the vertebræ of the loins.

63 The ſtomachic plexus, compoſed of ſome twigs from the right trunk of the eighth pair, and others from the gangliform ſemilunar plexus of the left intercoſtal nerve.

64 Small branches going from the gangliform ſemilunar plexus of the left intercoſtal nerve, which being reflected upwards, and communicating with one another, compoſe the ſplenic plexus.

65. 65 Twigs ariſing from the ſtomachic plexus, and terminating in the meſenteric plexuſes.

66. 66. 66. 66 Nervous filaments, which are beſtowed upon the membranes lining the vertebræ of the loins, and the parts contiguous.

67 A ſmall branch ſent from the inner ſide of the intercoſtal nerve, which on the right ſide is ſpent upon the right renal plexus, and on the left upon the left ſemilunar gangliform plexus.

68 A twig of the ſmall right branch 67, which is beſtowed upon the membranes ſurrounding the right kidney.

69 The trunk of the ſame right branch 67, which uniting with the lower exterior twig of thoſe 55. 55. &c. on the right ſide, forms with it a kind of net work, and at laſt together with it compoſes the right renal plexus 70. 70.

70. 70 The right renal plexus.

71 The interior twig of the ſmall nerves 55. 55. &c. of the right ſide, which is ſpent upon the membranes covering the right kidney; excepting thoſe little filaments of it 72. 72. 72, which with the other neighbouring ones 72. 72. 72, are beſtowed upon the membranes adjacent to the right kidney.

73 Two ſmall filaments of the little left branch 67, which are diſtributed to the membranes covering the left kidney.

74. 74 The left renal plexus, compoſed of three little branches ſent off from the left gangliform ſemilunar plexus.

75 A ſmall branch going from the left gangliform ſemilunar plexus, which is ſpent upon the membranes covering the left kidney; excepting thoſe little filaments of it 76. 76. 76, which, together with ſome other neighbouring ones, are beſtowed upon the membranes adjacent to the left kidney.

77. 77 The upper meſenteric plexus.

78. 78 The middle meſenteric plexus.

79. 79 The lower menſenteric plexus.

80. 80 The upper twigs of the lower meſenteric plexus, which are beſtowed upon the membranes lining the lower vertebræ of the loins.

81. 81. 81. &c. The lower twigs of the ſame meſenteric plexus, which are ſpent upon the membranes lining the os ſacrum, upon the coats of the rectum, the bladder, the ovaria, and uterus.

82. 82. 82. &c. The gangliform plexuſes in the form of a barley corn, which the intercoſtal nerve receives in the cavity of the abdomen.

83. 83. &c. Small branches which the intercoſtal nerve ſends off to the meſenteric plexuſes.

84. 84. &c. Small twigs of the intercoſtal nerve, which, together with thoſe 85. 85, and the others 87. 87, are beſtowed upon the ureters, the rectum, with it's levator muſcles, the ovaria, the uterus, the bladder, and it's ſphincter, the veſiculæ ſeminales, the proſtatæ, and the ſphincter of the anus.

86 A ſmall branch, by means of which the intercoſtal nerves communicate together near the extremity of the os ſacrum.

88. 88. 88. &c. The gangliform plexuſes of the ſpinal nerves, which are wanting in the firſt, twenty-eighth, twenty-ninth, and thirtieth pairs.

89. 89. 89. &c. Small branches which the ſpinal nerves ſend off to the intercoſtal, at each internode of the vertebræ.

90 A nerve here cut away, the diſtribution of which is explained in figure 13.

91. 91. &c. Small branches which the intercoſtal nerve ſends off to the dorſals.

92 A conſiderable branch of the intercoſtal nerve, which unites itſelf with the firſt of the nerves of the os ſacrum, and together with it terminates in the poſterior crural nerve.

93. 93. 93. &c. Twigs of the ſpinal nerves, the diſtribution of which is explained in the figures 10. 13 and 14.

94 The phrenic nerve, ariſing from the fourth pair of cervicals.

95 A twig of the phrenic nerve, which is beſtowed upon the muſcles of the neck, viz. the tranſverſalis, and the ſpinatus.

96 A ſmall branch of the ſixth pair of cervical nerves, which is inſerted into the phrenic.

97 A twig of the phrenic nerve, which is united with one ſent off from the ſecond pair of dorſals, and afterwards is blended with the intercoſtal.

98 The phrenic nerve cut off.

99 A twig of the brachial nerves, the diſtribution of which, as well as of the phrenic, will be explained in the next figure.

100 A nerve cut away, which is compoſed of two twigs ſent off from the ſixth and ſeventh pair of cervical nerves. The diſtribution of this likewiſe will be explained in the next figure.

101 The common ſheath of the brachial nerves cut through.

102 The kidney, which is a little higher in the left ſide than in the right.

103 A conſiderable branch of the loweſt of the lumbar nerves, which unites itſelf with the firſt pair of nerves of the os ſacrum, and helps to form the poſterior crural nerve.

104. 104. 104. &c. The five pair of nerves of the os ſacrum, the diſtribution of which is explained Fig. 15.

105 The poſterior crural nerve cut away, the diſtribution of which will be explained in it's proper place.

FIGURE X.

This figure repreſents ſeven pair of the cervical and dorſal nerves. It is taken from Tab. 24. of Vieuſſens.

A. A That part of the ſpinal marrow which lies within the ſeven vertebræ of the neck, and the two uppermoſt of the back.

B The firſt pair of cervical nerves cut off; the diſtribution of which ſee in the preceding figure.

a. a. a. a. &c. The gangliform plexuſes of the ſix inferior cervical nerves.

b. b The gangliform plexuſes of the two ſuperior dorſal nerves.

c. c. c. c. &c. Twigs of the ſix inferior cervical nerves, and of the firſt pair of dorſals, which are beſtowed upon the muſcles of the neck, viz. the tranſverſalis, and ſpinatus, and alſo the longiſſimus.

d. d. d. d. &c. Small branches cut away, which the ſix inferior cervical nerves, and the two ſuperior dorſals, ſend off to the intercoſtal.

e. e Two twigs cut off, by means of which the ſecond cervical nerves communicate with the eighth pair.

f. f. f Three pair of cervical nerves, viz. the ſecond, third, and fourth, which are united together by means of the ſmall branches g. g. g. g.

h. h Two ſmall branches of the ſecond pair of cervical nerves, which being reflected upwards, are diſtributed to the ear and it's muſcles, the parotids and integuments of the hind-head.

i A ſmall branch of the ſame ſecond pair of cervicals, which is ſpent upon the trapezius, and the neighbouring integuments.

k A twig of the ſame, which is inſerted into the external jugular vein.

l. l. l. l. &c. Small branches of the ſecond, third, and fourth cervical nerves, which are ſent to ſome of the muſcles of the neck, viz. the tranſverſalis, and ſpinatus; and of the head, viz. the ſplenius, the complexus, the ſmall and thick muſcles, the rectus major, and minor, the ſuperior oblique, and the inferior oblique; as likewiſe of the ſhoulder-blade, viz. the trapezius, rhomboides, and the levator ſcapulæ.

m A branch of the fourth pair of cervical nerves, terminating in the phrenic.

n. n. n The three inferior cervical nerves, which, together with the two ſuperior dorſals o. o, go to form the brachial nerves.

p A branch ſent off from the fifth cervical nerve, of which the twig q, paſſing through a foramen of the ſcapula r, is ſpent upon the ſupraſpinatus muſcle, and the twig s upon the ſubclavian muſcle, and the coracobrachialis.

T A ſmall branch of the ſixth cervical nerve, which terminates in the phrenic.

u Another ſmall branch ſent off from the ſame ſixth cervical, which uniting with the branch X of the ſeventh, forms the common trunk 2 here cut off, which ſends it's branches to ſome of the muſcles upon the thorax, viz. the ſerratus anticus major, and minor, as likewiſe the pectoral, and the neighbouring integuments.

1 The phrenic nerve, here likewiſe cut off. It ſometimes ſends off ſmall twigs to the pericardium, and then is diſtributed through the ſubſtance of the diaphragm.

C. D The ſheaths of the nerves n. n. n and o. o laid open, from which the brachial nerves emerge, as you may ſee in the two following figures.

3 A branch going out from the ſheath C. D, which is ſpent upon the ſerratus anticus minor, and the teguments covering it.

4 The thoracic gangliform plexus of the intercoſtal nerve.

5 A ſmall branch ſent off from the aboveſaid gangliform plexus, which uniting with another ſmall one 7, going from the ſecond of the dorſals, forms a nerve, the diſtribution of which is explained Fig. 13.

FIGURE XI.

This figure repreſents the nerves of the left arm, the hand lying ſupine. It is taken from Vieuſſens, Tab. 25.

A The ſheath of the brachial nerves, which is compoſed of their common external covering laid open.

1. 1. 1 Three ſmall branches going out from the ſheath of the brachial nerves, which are ſpent upon the ſubſcapularis muſcle, excepting ſome twigs, which are inſerted into the ſerratus major at it's origin.

2 Another ſmall branch going out from the ſheath of the brachial nerves.

3. 3 Twigs of the ſmall branch 2, which are ſpent upon the teres minor muſcle.

4. 4 Other twigs of the ſame ſmall branch 2, which are diſtributed to the axillary glands, and to the membranes and fat about them.

5. 5 More twigs of the ſame ſmall branch 2, which are inſerted into the ſerratus major muſcle.

6. 6. 6 Still more twigs of the ſame ſmall branch 2, which terminate in the latiſſimus dorſi, and the teres major muſcle.

7 A ſmall branch going out from the ſheath of the brachial nerves, which ſends off the twig 8 to the axillary glands, and afterwards running down upon the muſcles on the inſide of the arm, viz. the longus, and brevis, (i. e. *the long and ſhort heads of the triceps)* it reaches as far as the fore-arm, ſending off in it's courſe twigs to the above muſcles, and to the cellular membrane.

9 The laſt ſmall branch ſent off from the ſheath of the brachial nerves, which is diſtributed to the axillary glands, and to the membranes about them.

B The firſt brachial nerve, which goes out from the back part of the ſheath, and divides into the two branches C and D.

10. 10. 10 Twigs of the branch C, ſome of which are beſtowed upon the infraſpinatus muſcle, ſome upon the teres major, and ſome upon the heads of the longus and brevis muſcles.

11. 11 Twigs of the branch D, which terminate in the deltoid muſcle.

12. 12 The other twigs of the branch D, which are ſent to the teguments upon the upper and external part of the left arm.

E The ſecond brachial nerve, which runs down as far as the hand.

F. F The axillary artery accompanied with the vein, and ſurrounded as it were by the brachial nerves.

G A portion of the coracobrachialis muſcle, which the nerve E firſt perforates.

13. 13. 13 Twigs which the nerve E ſends off to the above muſcle.

14 A twig of the nerve E, which is diſperſed through the middle of the belly of the biceps.

15 A ſmall branch of the nerve E, whoſe twigs 16. 16. 16 are diſtributed through the biceps, but the one 17. 17, after ſending off ſome filaments to the brachialis internus muſcle, terminates in ſeveral ſmall twigs, which are inſerted into the teguments at the bending of the fore-arm.

18 Another ſmall branch of the nerve E, which paſſing under the head of the ſupinator longus, ſends off ſeveral twigs to it, and afterwards terminates in the external cubital muſcle.

19. 19. 19 Twigs of the nerve E, which are beſtowed upon the cellular membrane, and the other integuments.

20. 20. 20. 20. &c. Small twigs of the nerve E, the ſuperior of which are loſt in the integuments; the middle ones about the joint of the wriſt, are beſtowed upon the neighbouring membranes, and the ligaments connecting the radius and ulna with the bones of the carpus, while the lowermoſt run down upon the hand itſelf, and are loſt in the teguments; from which you may eaſily underſtand, that it is here repreſented ſomewhat ſhorter than it ought to be.

H The third brachial nerve.

21 A twig of the nerve H, which is ſpent upon the pronator teres of the radius.

22 Another twig of the nerve H, the upper filaments of which 23, 23 are beſtowed upon the pronator teres juſt mentioned, and the others 24. 24 paſſing under the ſublimis, are inſerted into the profundus.

25 A third twig of the nerve H, whoſe filaments terminate chiefly in the radiæus internus, only ſome of them are ſent to the ſublimis, and ſome to the palmaris.

26 A ſmall twig of the nerve H, which is ſpent upon the ſublimis.

27 A ſmall branch of the nerve H, of which the twig 28 paſſing by the flexor muſcle of the fore-finger, ſends off the filament 29 to it, and then terminates in the profundus.

30 A twig of the ſmall branch 27, which enters the flexor of the thumb, and is diſperſed through it.

31. 31 Two more twigs of the ſame ſmall branch 27, which are ſpent upon the flexor of the fore-finger.

32 Another twig of the ſmall branch 27, which is ſent to the flexor of the thumb.

33. 33 The laſt filaments of the ſame 27, which are beſtowed upon the quadratus muſcle.

34 A ſmall branch of the nerve H, the twigs of which being interwoven together, form a ſmall plexus, which lies under the broad tendon of the palmaris muſcle, and ſend off ſeveral fibres to the ſkin upon the palm of the hand.

I The diviſion of the nerve H below the annular ligament, into the interior, and the exterior branch.

35 The exterior branch of the diviſion I.

36. 36 The exterior ſmall branch of the one 35, whoſe twigs are ſent to the teguments upon the external lateral part of the thumb, excepting thoſe ſmall ones 37. 37, which are ſent to the abductor of the thumb, and another muſcle placed under the tendon of it's great flexor, which ſeveral anatomiſts look upon as it's ſecond flexor; but I am of opinion with that celebrated anatomiſt Riolan, that it is rather the ſecond abductor, or a portion of the firſt.

38. 38 The middle ſmall branch of the one 35, which is beſtowed upon the internal lateral part of the thumb, and the teguments covering it.

39 A twig of the ſmall branch 38. 38, which is inſerted into the adductor of the thumb.

40. 40 The interior ſmall branch of the one 35, which is ſpent upon the inſide of the fore-finger next the thumb.

41 A twig of the ſmall branch 40. 40, which is beſtowed upon the firſt lumbricalis muſcle, whoſe tendon is inſerted into the finger.

42. 42 Two twigs of the ſmall branch 40. 40, which are diſperſed through the adductor muſcle of the thumb. As to the reſt of the twigs of the ſame 40. 40, they are all diſtributed to the teguments of the fore-finger.

43 The interior branch of the diviſion I.

44 A twig of the branch 43, which is ſent to the interoſſeous muſcles.

45 A ſmall branch of the one 43, of which the twig 46 is beſtowed partly upon the internal interoſſeous muſcle, and partly upon the ſecond lumbrical; but the twigs 47. 47 are ſent partly to the fat and teguments of the fore-finger, and the middle finger, and partly to the ſecond lumbricalis muſcle.

48. 48 A twig of the ſmall branch 45, whoſe fibres are diſperſed upon the inſide of the fore-finger, next the middle finger.

49. 49 Another twig of the ſmall branch 45, the fibres of which are diſperſed upon the inſide of the middle finger, next the fore-finger.

50 Another ſmall branch of the one 43, the fibres of which 51. 51. 51, terminate partly in the third lumbricalis muſcle, and partly in the internal interoſſeous, which lies under the lumbricalis, when the hand is in a ſupine poſture.

52. 52 A twig of the ſmall branch 50, which after ſending off the fibre c to the teguments between the middle and the ring finger, is ſpent upon the inſide of the middle finger, next the ring finger.

53. 53 Another twig of the ſmall branch 50, which after ſending off the fibres d. d to the teguments between the middle finger and the ring finger, is diſtributed to the inſide of the ring finger, next the middle finger.

K The fourth brachial nerve.

54. 54. 54 Three twigs of the nerve K, which are ſpent upon the ſhort head of the triceps, which the aboveſaid nerve K penetrates near it's extremity.

55. 55 At this place the nerve K paſſing behind the fore-arm, between the olecranon and the internal apophyſis of the os humeri, lies under the tendons of the long and ſhort heads of the triceps.

56. 56. 56 Twigs of the nerve K, which are beſtowed upon the adipous membrane, and the other teguments.

57. 57 Twigs, which the nerve K towards the bending of the fore-arm ſends off to the head of the internal cubital muſcle.

58. 58. 58 Twigs of the nerve K, which are diſtributed to the internal flexor of the wriſt.

59 A twig of the nerve K, which is inſerted into the head of the profundus muſcle.

60 Another twig of the nerve K, which ſends off fibres to the artery and vein which it accompanies, and afterwards is ſpent upon the muſculus quadratus, the membranes upon the carpus, and the annular ligament.

b A branch of the nerve K cut off, which is ſent to the upper part of the hand, together with the nerve M which is cut off at a, as you will ſee in the next figure.

61 The trunk of the nerve K, which lying upon the muſculus profundus, goes almoſt as far as the wriſt before it divides, and there, together with the vein which attends it, it gets a new covering, which it preſently lays down again.

L The diviſion of the nerve K, into the interior and exterior branch.

62 The interior branch of the diviſion L, of which the twigs 63. 63. 63. 63 are ſent to the fourth lumbricalis muſcle, and the internal interoſſeous, which lies under the lumbricalis, when the hand is in a ſupine poſture.

64. 64 A twig of the interior branch 62, which together with it's fibres is diſtributed to the inſide of the ring finger, next the little finger.

65. 65 Another twig of the interior branch 62, which ſends it's fibres to the inſide of the little finger, next the ring finger.

66 The exterior branch of the diviſion L, of which the twigs 67. 67. 67. 67 are diſtributed to the abductor of the little finger, and the teguments covering it, while the reſt are ſpent upon the outſide of the ſame finger.

M The fifth brachial nerve.

68 A twig of the nerve M, which is diſtributed to the cellular membrane and the integuments.

69 A twig of the nerve M, which enters the head of the longus muſcle, *(or the long head of the triceps)* and terminates in it.

70 Another twig of the ſame M, which terminates partly in the brevis muſcle *(or the ſhort head of the triceps)* and partly in the brachiæus internus.

71. 71 A ſmall branch of the nerve M, which running along with it towards the outſide of the arm, perforates the longus muſcle near it's extremity, giving off lateral fibres to it, and at laſt terminates in the ſkin.

72. 72 Another ſmall branch of the nerve M, which in the ſame manner as the one 71. 71, perforates the longus muſcle, ſending likewiſe off little twigs to it, and afterwards runs to the outſide of the arm, going as far down as the carpus, where it is loſt in the teguments, eſpecially the ſkin.

N The nerve M, which together with it's ſmall branches 71. 71. and 72. 72, runs under the other nerves E, H and K, as alſo the os humeri, and gets to the outſide of the arm.

73 A twig of the nerve M, which is inſerted into the head of the ſupinator longus, above the external apophyſe of the os humeri, and terminates in it.

74 Another twig of the ſame nerve M, which is beſtowed upon the firſt extenſor of the carpus, or the external radiæus muſcle.

75. 75 Two twigs of the nerve M, going to the ſupinator brevis.

76 A ſmall branch of the nerve M, which paſſes through the ſupinator brevis, and as ſoon as it gets out of it divides into two branches, one of which 77, terminates in the ſecond extenſor of the thumb; while the other 78, ſends off it's upper twigs to the great extenſor of the fingers, and likewiſe to the proper extenſor of the little finger, and the lower ones to the great extenſor of the thumb, and the proper extenſor of the fore-finger.

79 A twig of the ſame nerve M, which is ſpent upon the firſt extenſor of the carpus, or the radiæus externus muſcle.

a The nerve M cut off, which being connected by means of certain little membranes to the firſt ſupinator muſcle, runs along with the twig 79, almoſt to the extremity of the radius, and together with the branch b, is continued to the external and upper part of the hand, as you will ſee in the following figure.

O The ſixth brachial nerve, which is diſtributed to the ſheaths of ſeveral of the muſcles, the cellular membranes, and the ſkin upon the whole inſide of the arm, as far as the wriſt itſelf.

80. 80 The conjunction of the two branches of the nerve O, which is ſometimes wanting.

FIGURE XII.

This figure repreſents the nerves of the right arm, the hand lying prone. It is taken from Vieuſſens, Tab. 26.

A The ſheath of the brachial nerves, which is compoſed of their common external covering, laid open.

1. 1. 1 Three ſmall branches going out from the ſheath of the brachial nerves, which are ſpent upon the ſubſcapularis muſcle, excepting ſome twigs which are inſerted into the ſerratus major at it's origin.

2 Another ſmall branch, going out from the ſheath of the brachial nerves.

3. 3 Twigs of the ſame ſmall branch 2, which are ſpent upon the teres minor muſcle.

4. 4 Other twigs of the ſame ſmall branch 2, which are diſtributed to the axillary glands, and to the membranes and fat about them.

5. 5 More twigs of the ſame ſmall branch 2, which are inſerted into the ſerratus major muſcle.

6. 6. 6 Still more twigs of the ſame ſmall branch 2, which terminate in the latiſſimus dorſi, and the teres major muſcle.

7 A ſmall branch going out from the ſheath of the brachial nerves, which ſends off the twig 8 to the axillary glands, and afterwards running down upon the muſcles on the inſide of the arm, viz. the longus and brevis, (i. e. *the long and ſhort heads of the triceps)* it reaches as far as the fore-arm, ſending off in it's courſe twigs to the above muſcles, and to the cellular membrane.

9 The laſt ſmall branch ſent off from the ſheath of the brachial nerves, which is diſtributed to the axillary glands, and to the membranes about them.

B The firſt brachial nerve, which goes out from the back part of the ſheath, and divides into the two branches C and D.

10. 10. 10 Twigs of the branch C, ſome of which are beſtowed upon the infraſpinatus muſcle, ſome upon the teres major, and ſome upon the heads of the longus and brevis muſcles.

11. 11 Twigs of the branch D, which terminate in the deltoid muſcle.

12. 12 The other twigs of the branch D, which are ſent to the teguments upon the upper and external part of the right arm.

E The ſecond brachial nerve, which runs down as far as the hand.

F The axillary artery accompanied with the vein, and ſurrounded as it were by the brachial nerves.

G A portion of the coracobrachialis muſcle, which the nerve E firſt perforates.

13. 13. 13 Twigs, which the nerve E ſends off to the above muſcle.

14 A twig of the nerve E, which is diſperſed through the middle of the belly of the biceps.

15 A ſmall branch of the nerve E, whoſe twigs 16. 16. 16 are diſtributed through the biceps, but the one 17. 17, after ſending off ſome filaments to the brachialis internus muſcle, terminates in ſeveral ſmall twigs, which are inſerted into the teguments at the bending of the fore-arm.

18 Another ſmall branch of the nerve E, which paſſing under the head of the ſupinator longus, ſends off ſeveral twigs to it, and afterwards terminates in the external cubital muſcle.

19. 19. 19 Twigs of the nerve E, which are beſtowed upon the cellular membrane, and the other integuments.

20 A ſmall twig of the nerve E, ſent likewiſe to the integuments.

a The nerve E cut off. For the diſtribution of it, ſee the preceding figure.

H The third brachial nerve.

21 A twig of the nerve H, which is ſpent upon the pronator teres of the radius.

22 Another twig of the nerve H, the upper filaments of which 23. 23 are beſtowed upon the pronator teres juſt mentioned, and the others 24, paſſing under the ſublimis, are inſerted into the profundus.

25 A third twig of the nerve H, whoſe filaments terminate chiefly in the radiæus internus, only ſome of them are ſent to the ſublimis, and ſome to the palmaris.

26 A ſmall twig of the nerve H, which is ſpent upon the ſublimis.

27 A ſmall branch of the nerve H, of which the twig 28 paſſing by the flexor muſcle of the fore-finger, ſends off the filament 29 to it, and then terminates in the profundus.

30 A twig of the ſmall branch 27, which enters the flexor of the thumb, and is diſperſed through it.

31. 31 Two more twigs of the ſame ſmall branch 27, which are ſpent upon the flexor of the fore-finger.

32 Another twig of the ſmall branch 27, which is ſent to the flexor of the thumb.

33 A very ſmall twig of the ſame branch 27, which is beſtowed upon the quadratus muſcle.

b The nerve H cut off. See the further diſtribution of it in the preceding figure.

c The ſmall branch 27 cut off. The further diſtribution of which ſee likewiſe in the preceding figure.

I The fourth brachial nerve.

34. 34. 34 Three twigs of the nerve I, which are ſpent upon the ſhort head of the triceps, which the aboveſaid nerve I penetrates near it's extremity.

35 At this place the nerve I paſſing behind the fore-arm, between the olecranon and the internal apophyſis of the os humeri, lies under the tendons of the long and ſhort heads of the triceps.

36. 36. 36 Twigs of the nerve I, which are beſtowed upon the cellular membrane, and the other integuments.

37. 37 Twigs ſent off from the nerve I, to the head of the internal cubital muſcle, near the bending of the fore-arm.

38. 38. 38 Twigs of the nerve I, which are diſtributed to the internal flexor of the wriſt.

39 A twig of the nerve I, which is inſerted into the head of the profundus muſcle.

40 Another twig of the nerve I, which ſends off fibres to the artery and vein which it accompanies, and afterwards is ſpent upon the muſculus quadratus, the membranes upon the carpus, and the annular ligament of the wriſt.

d The twig 40, here cut off. See the farther diſtribution of it in the preceding figure.

e The trunk of the nerve I cut off. The further diſtribution of which ſee likewiſe in the preceding figure.

41 A branch of the nerve I, which is cut off in the preceding figure, and marked b.

42. 42 Twigs of the branch 41, ſent to the abductor muſcle of the little finger.

43 A twig of the ſame branch 41, which is ſpent upon the teguments on the back part of the metacarpus.

44. 44. 44. 44. &c. More twigs of the branch 41, which terminate in the teguments on the back of the hand.

45. 45 A twig of the branch 41, which is ſpent upon the back part of the little finger, next the ring finger.

46. 46 Another twig of the ſame branch 41, which, together with it's fibres, is ſpent upon the back part of the little finger, next the ring finger.

47. 47 Still another twig of the branch 41, which is beſtowed upon the back part of the ring finger, next the little finger.

48. 48. 48 Small fibres of the nerve 41, which are ſent to the interoſſeous muſcles, and the integuments on the back part of the metacarpus.

49. 49. 49 More fibres of the nerve 41, which are ſent to the teguments on the back part of the metacarpus.

50. 50 A twig of the branch 41, which is ſent to the back part of the ring finger, next the middle finger.

51. 51 The laſt twig of the branch 41, which is ſent to the back part of the middle finger, next the ring finger.

K The fifth brachial nerve.

52 A fibre of the nerve K, which is beſtowed upon the cellular membrane, and the other integuments.

53. 53 More fibres of the nerve K, which are ſpent upon the head of the longus muſcle, *(or long head of the triceps)* and terminate in it.

54 Another fibre of the nerve K, which is beſtowed partly upon the ſhort head of the triceps, and partly upon the brachiæus internus muſcle.

55. 55 A ſmall branch of the nerve K, which running towards the out-ſide of the arm, together with the nerve, perforates the longus muſcle, near it's extremity, ſending off fibres to it, and at laſt is ſpread out upon the ſkin.

56. 56 Another ſmall branch of the nerve K, which in the ſame manner as the ſmall branch 55. 55, perforates the longus muſcle, and ſends off fibres to it; after which running on to the out-ſide of the arm, and down as far as the metacarpus, it terminates in the teguments, and eſpecially in the ſkin.

57 A twig of the nerve K, which is inſerted into the head of the long ſupinator muſcle, above the external apophyſe of the os humeri, and terminates in it.

58 Another twig of the nerve K, which is beſtowed upon the firſt extenſor of the carpus, or the external radial muſcle.

59 Another twig of the ſame nerve K, which is ſent to the ſhort ſupinator muſcle.

60 A ſmall branch of the nerve K, which paſſes through the ſhort ſupinator muſcle, and as ſoon as it emerges, it divides into two branches; one of which, viz. 61, is ſpent upon the ſecond extenſor of the thumb, while the other 62, ſends off it's upper twigs to the common extenſor of the fingers, and alſo to the proper extenſor of the little finger; and the lower ones to the firſt extenſor of the thumb, and to the proper extenſor of the fore-finger.

63 A twig of the nerve K, which is beſtowed upon the firſt extenſor of the carpus, or the external radial muſcle.

64. 64 The trunk of the nerve K, which being connected by means of ſome very thin membranes to the firſt ſupinator muſcle, runs down with the twig 63, almoſt as far as the end of the radius, and together with the branch 41, is beſtowed upon the upper and back part of the hand.

65. 65 A ſmall branch of the nerve K, the upper and larger twig of which 66, is inſerted into the abductor muſcle of the thumb, while the reſt are ſent to the teguments on the back of it.

67 A ſmall branch of the nerve K, ſent to the teguments on the upper and back part of the thumb, and going as far as the ſecond joint of the thumb. This ſometimes ariſes from the ſmall branch 65. 65.

68. 68 A ſmall branch of the nerve K, of which the twig 69 is beſtowed upon the antithenar muſcle, and the reſt are ſpread upon the back part of the thumb laterally, next the fore-finger.

70 A twig of the nerve K, which is ſpent upon the teguments on the back of the hand.

71. 71 More twigs of the nerve K, which are beſtowed partly upon the antithenar muſcle, and partly upon the teguments on the back of the hand.

72. 72 A ſmall branch of the nerve K, which together with it's twigs, is diſtributed to the back part of the fore-finger laterally, next the thumb.

73 A branch of the nerve K, whoſe twigs 74. 74. 74 are ſent to the back of the hand, and the external interoſſeous muſcles.

75. 75 Twigs of the nerve K, which are inſerted into the teguments on the back of the hand.

76. 76 A twig of the branch 73, which together with it's fibres, is beſtowed upon the back part of the fore-finger laterally, next the middle finger.

77. 77 Another twig of the branch 73, which, together with it's fibres, is beſtowed upon the back part of the middle finger laterally, next the fore-finger.

L The ſixth brachial nerve, which is ſent to the ſheaths of ſeveral of the muſcles, to the cellular membrane, and to the ſkin upon the whole inſide of the arm, as far down as the wriſt.

78 The conjunction of two branches of the nerve L, which is ſometimes wanting.

FIGURE XIII.

This figure repreſents the dorſal nerves, and is taken from Vieuſſens, Tab. 27.

A. A That portion of the ſpinal marrow which is contained within the vertebræ of the back.

B The gangliform thoracic plexus of the intercoſtal nerve.

a A ſmall branch going out from the above thoracic plexus, which joins itſelf to another ſmall branch ſent from the ſecond dorſal plexus, and together with it forms the nerve E, which in Fig. 9. and 10 is cut off.

C. C. &c. The gangliform plexuſes of the dorſal nerves, the two uppermoſt of which go to the brachial nerves, as you may ſee Fig. 10.

D The ſecond dorſal nerve cut off.

E A nerve compoſed of the ſmall branch a, and of another ſmall branch ſent from the ſecond dorſal nerve, which is beſtowed upon the ſubclavian muſcle, and the teguments lying upon it, excepting only a ſlender branch b, which is ſent to the ſerratus minor anticus muſcle.

c. c. c. c. &c. The dorſal nerves, which are diſperſed to the teguments of the thorax, the intercoſtal muſcles, the levators of the ribs, the pectoral, ſerratus major, both the ſerrati poſtici, the cervicalis deſcendens of Diemerbroeck, the plura, the triangular muſcle, and mediaſtinum.

d. d. d. d. &c. Small branches cut off, which the intercoſtal nerve ſends to the dorſals.

e. e. e. e. &c. Other ſmall branches cut off, which the dorſal nerves ſend to the intercoſtal.

f. f. f. f. &c. Twigs of the dorſal nerves, which are beſtowed upon the levator muſcles of the ribs, the cervicalis deſcendens of Diemerbroeck, and the longiſſimus dorſi.

g. g. g. g. &c. Branches ſent off from the ſix inferior dorſal nerves, to the teguments upon the lower part of the thorax, and the containing parts of the abdomen.

h A branch of the laſt of the dorſal nerves, which is ſent to the ſacro-lumbalis muſcle.

FIGURE XIV.

This figure repreſents the diſtribution of the lumbar nerves and is taken from Vieuſſens, Tab. 28.

A. A That portion of the ſpinal marrow, which is contained within the vertebræ of the loins.

a. a. a. &c. The gangliform plexuſes of the lumbar nerves.

b. b. b. &c. Twigs of the lumber nerves, which are ſpent upon the muſcles of the back and loins, viz. the quadratus, longiſſimus dorſi, ſacer, and ſemiſpinatus.

c. c. c. &c. Small branches of the lumbar nerves, which are ſent off to the intercoſtal.

B A branch of the laſt lumbar nerve cut off, which joins in with the firſt of the ſacral, and terminates in the poſterior crural nerve.

1 A ſmall branch of the firſt lumbar nerve, which ſends it's twigs to the diaphragm, peritonæum, and the muſcles of the abdomen.

2 The firſt lumbar nerve.

3 A ſmall branch of the nerve 2, which is ſpent upon the tranſverſalis muſcle, and the two oblique.

5. 5 Four ſmall branches of the nerve 2, which are ſent to the teguments covering the os ſacrum, the ilium, and coxendix.

6 A ſmall branch of the nerve 2, which ſends off ſome twigs to the peritonæum; and as ſoon as it has got to the ſpine of the ilium, it is beſtowed upon the tranſverſe and internal oblique muſcle of the abdomen.

d Another ſmall branch of the nerve 2, which after ſending off the twigs * * to ſome of the muſcles of the back and loins, viz. the quadratus, longiſſimus dorſi, ſacer, and ſemiſpinatus, it unites itſelf with the ſecond of the lumbar nerves.

7 A twig of the ſecond lumbar nerve, which climbs over the ſmall branch d, and is beſtowed upon the quadratus muſcle.

8. 8 A ſmall branch of the ſecond lumbar nerve.

9 A twig of the ſmall branch 8. 8, which towards the inner edge of the ſpine of the ilium, penetrates the internal oblique muſcle of the abdomen, and terminates in it.

10 The diviſion of the ſmall branch 8. 8.

11 The internal portion of the diviſion 10.

12 The external portion of the diviſion 10, which is ſent to the teguments covering the fore-part of the ilium.

13 The conjunction of the two above 11 and 12.

14 A twig of 11, and of the ſmall branch 22, which, together with the twig 15, is inſerted into the internal oblique muſcle of the abdomen.

16. 16 Two twigs ſent off from the ſame 11 and 22, to the oblique muſcles of the abdomen.

e A twig of 11 and of the ſmall branch 22 united, which is ſpent upon the inguinal glands, and the pectineus muſcle.

17. 17 Another twig of the ſame, ſent to the cremaſter muſcle, to the proceſs of the peritonæum, and the coats of the ſpermatic veſſels.

18. 18 A third twig of the ſame, which is diſtributed to the teguments on the upper part of the pubis.

19. 19 A fourth twig of the ſame, which terminates in the teguments of the groins.

20 A fifth twig of the ſame, ſpent upon the teguments of the pubis.

21. 21 A ſixth twig of the ſame, which terminates in the ſcrotum.

22 A ſmall branch of the ſecond lumbar nerve, which unites itſelf with 11, above the inner ſpine of the os ilium.

23. 23 Another ſmall branch of the ſame nerve, for the moſt part ſingle, and ſometimes having three origins, which after ſending off the wings 24. 24 to the pſoas muſcle, under which it runs, it winds round the iliac veſſels, a little before they paſs out of the abdomen, and is ſpent upon their coats, and likewiſe on the inguinal glands.

25. 25 Twigs, which the ſecond lumbar nerve ſends off to the pſoas muſcle.

26 Another ſmall branch of the ſecond lumbar nerve, which is inſerted into the third. Here it muſt be obſerved, that the ſecond lumbar nerve ſometimes unites itſelf immediately with the third.

27. 27 Twigs, which the trunk of the ſecond lumbar nerve ſends off to the pſoas muſcle, in it's courſe through that muſcle.

28. 28 The trunk of the ſecond lumbar nerve, going out from the laſt-mentioned muſcle.

29 A twig of the ſecond lumbar nerve, repreſented ſmaller than it naturally is in proportion to the others. It is diſtributed to the peritonæum, and the proper membranes of the pſoas and internal iliac muſcle.

30 The diviſion of the ſecond lumbar nerve.

31 The exterior branch of the diviſion 30, which is repreſented ſomewhat ſmaller in proportion than it naturally is.

32 The interior branch of the diviſion 30.

33 A twig of the branch 31, which, after ſending off ſome fibres to the inguinal glands, is ſpent upon the peritonæum, and the rectus, pyramidalis, and internal oblique muſcle of the abdomen.

34 A very ſmall twig of the branch 31, which is diſperſed through the inguinal glands.

35. 35 The remaining part of the branch 31, which enters the proceſs of the peritonæum, and after ſending off ſome twigs to the cremaſter muſcle, and to the ſheaths of the ſpermatic veſſels, is ſpent upon the coats of the teſticles.

36 A twig of the branch 32, which terminates in the peritonæum.

37 The diviſion of the branch 32 into three ſmaller ones.

38 The upper ſmall branch of the one 37, which is ſent to the teguments upon the pubes.

39 A twig of the middle ſmall branch of the one 37, ſent to the teguments upon the upper part of the pubes.

40 The middle ſmall branch of the one 37, which is beſtowed upon the teguments of the penis.

41 A twig of the lower ſmall branch of the one 37, which is diſperſed through the ſcrotum.

42. 42 The remaining part of the lower ſmall branch of the ſame 37, which after ſending off a twig or two to the teguments upon the groins, terminates in the upper part of the perinæum. Here it muſt be obſerved, that the trunk of the ſecond lumbar nerve 28. 28, ſometimes ſends off a conſiderable branch, which is diſtributed to the glands in the groins, and upon the upper part of the thigh, and likewiſe to the teguments upon the fore-part of the thigh; and then the branch of the third lumbar nerve marked 53. 53, is either altogether wanting, or only very ſmall.

43 A branch of the third lumbar nerve.

44 A twig of the branch 43, which is ſpent upon the pſoas muſcle.

f. f The conjunction of the branches 43 and 66. 66. Here it muſt be remarked, that theſe two branches, which are always ſent to the teguments on the external lateral part of the thigh, are ſometimes found ſeparated without the cavity of the abdomen.

45 A twig of the united branches 43 and 66. 66, which is ſpent upon the ſartorius muſcle.

46 Another twig of the ſame branches, which in the ſame manner as the laſt, is inſerted into the head of the laſt-mentioned muſcle, and terminates in it.

47. 47 The diviſion of the nerve made up of the above branches 43 and 66. 66.

48 The exterior branch of 47. 47, the twigs of which terminate in the cellular membrane, and the ſkin upon the external lateral part of the thigh, excepting ſome which are ſpent upon the aponeuroſis of the muſculus membranoſus, or faſcialis of the tibia.

g. g. g The extremities of the branch 48.

49 The interior branch of 47. 47, the twigs of which running down as far as the knee, are beſtowed upon the teguments on the external lateral part of the thigh.

h. h The extremities of the branch 49.

50. 51. 52 Three twigs of the third lumbar nerve, which are diſtributed to the pſoas muſcle.

53. 53 A branch of the ſame third lumbar nerve, which is ſometimes wanting, or at leaſt very ſmall, as was remarked above. Here it muſt be obſerved, that that branch is compoſed ſometimes of two, ſometimes of three, and ſometimes of four others.

54. 54 Two twigs of the branch 53. 53, which are ſpent upon the inguinal glands.

55. 55 A twig of the branch 53. 53, which after ſending off the fibres 56. 56 to the ſubinguinal glands, runs between the crural artery and vein, and is ſpent upon the coats of theſe veſſels.

57. 57 The diviſion of the branch 53. 53, into three ſmaller branches.

58 The interior branch of 57. 57, which after having ſent off ſeveral little twigs in form of a ſmall plexus to the ſubinguinal glands, is diſperſed through the teguments upon the internal lateral part of the thigh.

59. 59. 59 Conglobate glands, ſituated upon the upper and internal part of the thigh, whence they have the name of ſubinguinal. But theſe, as well as the others, are ſubinguinal; which upon account of their ſituation we have called the inguinal, and here they are repreſented much ſmaller in proportion, than they naturally are.

60 The exterior branch of 57. 57, which paſſes under the anterior crural nerve, and immediately afterwards unites itſelf with the branch 61.

61 The middle branch of 57. 57.

62 A twig of the branch 61, which is ſpent upon the integuments.

63 The diviſion of the branch 61.

64. 64 The exterior ſmall branch of 63, which runs down as far as the knee-pan, and is diſtributed to the teguments upon the fore-part of the thigh.

65. 65 The interior ſmall branch of 63, which runs down as far as the former, and ſends off it's twigs to the teguments on the anterior and internal lateral part of the thigh.

66 A branch of the third lumbar nerve, which for the moſt part unites itſelf with the branch 43, above the ſpine of the os ilium, and ſometimes it is found ſeparate from it.

67 A ſmall branch of the third lumbar nerve, which running downwards together with the others 68 and 69, and uniting with them forms the nerve 70.

68 Two ſmall branches of the fourth lumbar nerve, which unite themſelves with the one 67. It muſt however be obſerved, that the fourth lumbar nerve ſometimes ſends only one ſmall branch to the one 67.

69 A ſmall branch of the fifth lumbar nerve, which unites itſelf with 67, in the ſame manner as the others 68.

70 A nerve compoſed of the above ſmall branches 67. 68 and 69.

71 A twig, which the nerve 70 ſends to the internal obturator of the thigh.

i The diviſion of the nerve 70.

72 Two twigs, which the interior branch of i ſends off to the external obturator muſcle.

73. 73 A twig of the exterior branch of i, which is ſent to the gracilis poſticus, or internus muſcle.

74 The exterior branch of i, which is ſpent upon the triceps muſcle.

75. 75 The interior branch of i, which ſends off it's twigs in which it terminates 76. 76, to the lower part of the triceps.

77 The union of the third and fourth lumbar nerves.

78 A twig of the fourth lumbar nerve, which terminates in the pſoas muſcle.

79 The union of the fourth and fifth lumbar nerves.

C. C The anterior crural nerve, which is compoſed of the lumbar nerves united together.

80 A ſmall twig of the anterior crural nerve, which is beſtowed upon the internal iliac muſcle.

81 Another ſmall twig of the ſame nerve, diſtributed to the pſoas muſcle.

82 A ſmall branch of the ſame, diſperſed through the internal iliac muſcle.

83 Another ſmall twig of the ſame, ſent to the pſoas muſcle.

84. 84 Two more twigs of the ſame nerve contiguous at their origin, ſpent upon the longiſſimus tibiæ, or ſartorius muſcle.

D The diviſion of the anterior crural nerve into four branches.

85 The firſt and exterior branch of the diviſion D.

86 A twig of the branch 85, which is ſent to the muſculus rectus of the the tibia, or the gracilis anticus.

87 Another ſmall twig of the branch 85, which after ſending off ſome fibres to the aboveſaid muſcle of the tibia, enters the vaſtus internus muſcle, and terminates in it.

88 The ſecond branch of the diviſion D.

89 The ſmall ſuperior twig of the branch 88, which is beſtowed upon the fleſhy part of the faſcialis, or membranoſus muſcle.

90 Another twig of the branch 88, which terminates in the vaſtus externus.

91 A third twig of the branch 88, ſent to the crureus muſcle.

92 A fourth twig of the branch 88, which is diſperſed through the vaſtus internus muſcle.

93 The third branch of the diviſion D, lying upon the fourth, to be deſcribed immediately.

94 A nerve compoſed of three fibres of the branch 93 united together, which enters the cellular ſheath of the crural artery, and after it has got out of it again, ſends four branches 95. 95 to the teguments upon the inſide of the thigh.

96. 96 The trunk of the nerve 94, which runs down as far as the ham, and ſends off it's twigs to the inſide of the thigh; excepting ſome which it gives to the vena ſaphenæ which it accompanies.

97 A twig of the branch 93, which is inſerted into the coats of the crural veſſels.

K. K The diviſion of the branch 93, after it has ſent off the nerve 94, and the twig 97.

98. 98 The exterior branch of the diviſion K. K, which enters the ſartorius muſcle, and terminates in it.

99. 99. 99 The other branch of the diviſion K. K, which runs down as far as the knee, giving off ſome twigs to the ſartorius muſcle, upon which it lies, and afterwards is ſpread upon the teguments on the inſide of the thigh.

100 The fourth branch of the diviſion D.

101 A twig of the branch 100, which enters the head of the vaſtus internus muſcle, and terminates in it.

102 Another twig of the branch 100, which is beſtowed upon the ſame muſcle.

103 A branch of the ſame 100, which is diſperſed through the vaſtus internus muſcle. Here it muſt be obſerved, that the trunk of the branch 100, a little below the diviſion D, enters the ſheath of the crural artery, and as ſoon as it gets out again, is divided into two branches.

104 The diviſion of the branch 100.

105 A branch of the diviſion 104, which leaves the crural artery.

106 A ſmall branch of 105, which is ſpent upon the vaſtus internus muſcle.

107. 107 The trunk of 105, which after ſending off the twig m to the vaſtus internus, terminates in the inferior tendon of the triceps muſcle.

108 A branch of 104, which accompanies the crural artery, and ſends off the twigs 109. 109 to the longiſſimus tibiæ, or the ſartorius muſcle.

110 The branch 108 leaving the crural artery, a little above the ham.

111 A ſmall branch of the one 108, which is ſent to the teguments on the upper and fore-part of the leg.

112 Another ſmall branch of the ſame, which together with the former is ſent to the teguments on the fore-part of the leg.

113 A third ſmall branch of the ſame 108, which is ſpent upon the teguments on the inſide of the leg.

114. 114 The diviſion of the branch 108.

115 The exterior branch of the diviſion 114. 114.

116 A ſmall branch of 115, which unites itſelf with the one 119.

117 A twig of the ſmall branch 116, which terminates in the teguments near the calf of the leg.

118 The trunk of 115, which is beſtowed upon the teguments on the fore-part of the leg.

119 The interior branch of the diviſion 114. 114.

120. 120 A ſmall branch of 119, which beſtows the twig 121, and the others in which it terminates, upon the teguments covering the inſide of the leg.

122 The union of the ſmall branch 116 with the branch 119.

123 A twig of the branch 119, which is beſtowed upon the inſide of the leg.

124 The diviſion of the trunk formed by 116 and 119.

125 The exterior branch of the diviſion 124.

126 A twig of the branch 125, which, together with the twig 127, is beſtowed upon the teguments on the fore-part of the leg.

128 A ſmall branch of 125, which, together with it's twigs, is diſtributed to the teguments on the upper part of the tarſus or inſtep.

129 Another ſmall branch of 125, which, in the ſame manner as the former, is diſtributed to the teguments on the upper part of the inſtep, near the internal ankle.

130 The interior branch of the diviſion 124, whoſe twigs 131. 131. &c. are ſent to the inſide of the leg.

132 The diviſion of the branch 130.

133 The interior ſmall branch of 132, which, after having ſent off ſeveral ſmall twigs to the teguments upon the internal ankle, is inſerted into the ligament which connects the bones of the tarſus together.

134 The exterior ſmall branch of 132, which leaves the vena ſaphena a little above the internal ankle.

135. 135. 135 Slender twigs of the ſmall branch 134, which are diſtributed to the teguments covering the internal ankle.

136 More ſlender twigs of 134, which terminate in the teguments on the inſide of the inſtep.

FIGURE XV.

This figure repreſents the nerves of the os ſacrum, and is taken from Vieuſſens, Tab. 29.

A. A The poſterior ſurface of that portion of the medulla ſpinalis, which lies within the vertebræ of the os ſacrum.

B. B The trunk of the loweſt lumbar nerve cut through, which unites itſelf with the loweſt of the os ſacrum, and together with it terminates in the poſterior crural nerve.

C. C The firſt nerve of the os ſacrum.

D. D The ſecond.

E. E The third.

F. F The fourth.

G. G The fifth.

H. H The ſixth, which is diſtributed to the teguments lying upon the os coccygis.

I A production of the ſecond, or of the firſt proper ſheath of the medulla ſpinalis, which terminates in the coccyx.

K. K. K Gangliform plexuſes of the three firſt nerves of the os ſacrum.

* A branch of the intercoſtal nerve, which unites itſelf with the firſt of the os ſacrum, and together with it terminates in the poſterior crural.

L The conjunction of the nerves B and C.

1 A ſmall branch of the united nerves B and C, which after going out of the cavity of the abdomen by the external fiſſure of the os ilium, is divided into two twigs.

2. 2 The inferior twig of the ſmall branch 1, which ſends it's fibres to the glutæus minor muſcle.

3. 3 The ſuperior twig of the ſmall branch 1, whoſe fibres are inſerted into the glutæus medius.

4 A ſmall branch of the nerve D, which after going out of the abdomen by the external fiſſure of the os ilium, is divided into two twigs; the inferior of which 5. 5, enters the glutæus medius muſcle, and terminates in it, while the ſuperior 6. 6 is diſperſed through the glutæus major.

M. M The poſterior crural nerve, which is compoſed of the nerves B. C. D and E united, and lies upon the internal ſurface of the os ſacrum; whence happens that numbneſs of the thigh, for moſt part attended with a pain in the loins, in women with child, and when the belly is coſtive.

7. 7 A twig going from the gangliform plexus of the nerve E, which unites itſelf with the nerve F.

8. 8 A ſmall branch of the nerve E, which after ſending off the ſmall twigs 9. 9 to the external iliac, or the pyriform muſcle, terminates in the poſterior crural nerve.

N A ſmall branch of the nerve E, which ſends off the twig 10 to the above pyriform muſcle, then unites itſelf with the nerve F, and at laſt terminates in the poſterior crural nerve.

11. 11 Two twigs of the nerve F, the fibres of which are ſpread upon the rectum.

12. 12 A ſmall branch of the nerve F, which is ſpent partly upon the rectum, partly upon the ſphincter and levator muſcles of the anus, and partly upon the glutæus major of the thigh.

13 The trunk of the nerve F, which unites itſelf with the branch 20.

14 The diviſion of the trunk 13 into two ſmall branches, which go to the teguments on the perinæum, and ſend off the ſmall twigs 15. 15. &c. both to the common and proper coats of the teſticles.

16. 16. 16 Twigs of the fifth nerve of the os ſacrum, which are beſtowed upon the rectum and it's levator muſcles.

17. 17 Small twigs of the ſame fifth nerve of the os ſacrum, which terminate in the ſphincter ani, and the neighbouring membranes.

18 The ſixth, or laſt nerve of the os ſacrum, the twigs of which are diſtributed to the teguments covering the coccyx, as was obſerved above.

19. 19 A branch going from the poſterior crural nerve, which is ſpent upon the internal iliac, and internal obturator muſcle.

20 A branch compoſed of united twigs from B and C, going out from the poſterior crural nerve.

21. 21. 21 Twigs of the branch 20, which is ſent to the teguments about the perinæum.

22 A twig of the ſame branch 20, which is ſpent upon the erector muſcle of the penis.

23 Another twig of the ſame, ſent to the accelerator muſcle of the penis.

24 The laſt twigs of the ſame branch 20, which, together with the five above them, are diſperſed through the corpus nervoſum penis, and through the glands.

25 A branch, ariſing from the poſterior crural nerve, whoſe twigs 26. 26. 26 are beſtowed upon the two ſmalleſt of the quadrigemini muſcles.

27 The laſt ſmall twigs of the branch 25, which terminate in the quadrigeminus muſcle, called the quadratus.

28 A branch compoſed of ſome fibres of the nerve D, going out from the poſterior crural nerve.

29. 29. 29 Twigs of the branch 28, diſperſed through the glutæus major, excepting ſome ſmall fibres which terminate in the ſkin.

30 Here the branch 28, receives a twig which is ſent off from the poſterior crural nerve.

31. 31 A branch of the one 30, which is beſtowed partly upon the perinæum, and partly upon the ſcrotum.

32. 32 Another branch of the ſame, which divides into two ſmaller ones, ſent to the teguments upon the hind part of the thigh.

O. O The poſterior crural nerve, which near the ham is divided into two conſiderable branches. Obſerve, that ſometimes towards the upper part, and ſometimes towards the middle of the thigh, this nerve appears to be double.

35. 35 A ſmall branch of the poſterior crural nerve, which is ſent to that portion of the biceps muſcle of the thigh, which ariſes from the tuberoſity of the os iſchium.

36 A branch of the poſterior crural nerve, which at it's origin ſeems ſometimes divided into three packets.

37 A twig of the branch 36, which terminates in the inferior and long portion of the triceps.

38. 38 A ſmall twig of the ſame 36, diſtributed to the ſeminervoſus muſcle.

39. 39 Another twig of the ſame branch 36, diſperſed through the ſemimembranoſus muſcle.

40 A branch of the poſterior crural nerve, which ſends off the twig 41. 41, to the fleſhy portion of the biceps of the thigh.

42 Small twigs of the branch 40, which terminate in the panniculus carnoſus of the thigh.

43 Small fibres of the branch 40, which are ſpread upon the membranes covering the external and inferior tuberoſity of the os femoris.

44. 44 The laſt ſmall twigs of the branch 40, which are inſerted partly into the membranes in the neighbourhood of the rotula, and partly into the ligaments which connect that bone with thoſe of the thigh and leg.

P The diviſion of the poſterior crural nerve into two remarkable branches, marked Q and R.

Q The exterior and ſmaller branch of the diviſion P.

R The interior and larger branch of the ſame diviſion P.

45 A ſmall twig of the branch Q, which is diſperſed through the membranes lying upon the upper part of the fibula.

46 Another twig of the branch Q, which is ſpent upon the teguments on the outſide of the leg. Obſerve, that this twig towards it's origin is ſometimes divided into two ſmaller ones, and theſe ſmall ones ſubdivide into ſmaller and ſmaller fibres.

47. 47 The laſt ſmall twigs of the branch Q, which terminate in the teguments on the external ankle.

48 A ſmall twig of the branch Q, which are ſpent partly upon the teguments on the upper part of the fibula, and partly upon the popliteus muſcle.

49. 49 Another ſmall twig of the branch Q, which is beſtowed upon the peronæus anticus muſcle.

50 The continuation of the branch Q.

51. 51 The diviſion of the above 50 into two ſmall branches, the leſſer of which 52, terminates into the peronæus anticus muſcle, and the larger one 53. 53, is inſerted into the peronæus poſticus.

54. 54 A twig of the branch Q, which is ſpent upon the peronæus anticus muſcle.

55 Another twig of the branch Q, whoſe fibres 56, terminate in the tibialis anticus muſcle, and thoſe 57, in the long extenſor of the toes.

S. S The diviſion of the branch Q.

T The larger branch of the diviſion S. S.

58. 58 A twig of the branch T, which terminates in the tibialis anticus muſcle.

u. u The diviſion of the branch T.

59 A ſmall branch of the one u. u.

60 A twig of the ſmall banch 59, which is diſtributed to the long extenſor of the toes.

61 Another twig of the ſmall branch 59, which terminates in the cellular membrane under the ſkin.

62. 62 More twigs of the ſmall branch 59, which are ſpent upon the teguments on the inſtep.

63. 63 Another ſmall twig of the branch 59, the fibres of which are diſtributed to the membranes upon the tarſus, and the interoſſeous muſcles of the toes.

64. 64. 64 More ſmall twigs of the ſame 59, which are beſtowed upon the teguments on the inſide of the metatarſus.

65. 65 The laſt ſlender fibres of the ſmall branch 59, which are ſent to the teguments on the upper part of the great toe.

66. 66 The other ſmall branch of the diviſion u. u, which paſſes through the long extenſor muſcle of the toes.

67. 67 Two ſlender twigs of the ſmall branch 66. 66, which are ſpent upon the extenſor muſcle of the great toe.

68 A ſlender twig of the ſame ſmall branch 66. 66, which, together with 67. 67, terminates in the extenſor muſcle of the great toe.

69 Another ſlender twig of the ſame 66. 66, which is diſperſed through the tibialis anticus muſcle.

70. 70 The diviſion of the ſmall branch 66. 66.

71 A ſmall nervous twig, by means of which the two branches 70. 70, communicate with one another.

72. 72 The conjunction of the two branches 70. 70.

73. 73 The ſecond diviſion of the ſmall branch 66. 66.

74. 74 The exterior branch of the diviſion 73. 73, which beſtows it's twigs upon the ſhort extenſor of the fingers, the membranes of the tarſus, and the interoſſeous muſcles.

75. 75 The middle branch of the diviſion 73. 73, which after having paſſed under the annular ligament of the tarſus, together with the other branches of the ſame diviſion, is divided into two ſmaller ones, which are diſperſed through the membranes upon the tarſus and metatarſus, and likewiſe the interoſſeous muſcles.

76. 76 The interior and largeſt branch of 73. 73.

77 A twig of 76. 76, which is ſpent upon the teguments of the metatarſus.

78. 78 The diviſion of the branch 76. 76 into two ſmaller ones.

79. 79 The interior branch of 78. 78, which is beſtowed upon the upper and lateral part of the great toe, next the ſecond toe.

80. 80 The exterior branch of 78. 78, which is ſpread upon the upper and lateral part of the ſecond toe, next the great toe.

X. X The ſmaller branch of the diviſion S. S.

81 A twig of the branch X. X, which is inſerted into the peronæus anticus muſcle.

82. 82 Another twig of the branch X. X, which is diſperſed through the peronæus poſticus muſcle.

83 The continuation of X. X, which lying upon the peronæus poſticus, and adhering to it, runs downwards, and forwards a little above the external ankle.

84. 84. 84 More twigs of X. X, which are inſerted into the teguments upon the external ankle.

85. 85 Glangliform plexuſes, which the branch X. X ſometimes forms towards the fore-part of the leg, a little above the ankles.

86. 86 Twigs going out from the above plexuſes, to be beſtowed upon the teguments.

87 The diviſion of the branch X. X.

88 The interior branch of the diviſion 87, which ſends off twigs here and there to the teguments of the tarſus and metatarſus.

89. 89 The diviſion of the branch 88 into two ſmaller ones.

90. 90 A branch of the diviſion 89. 89, which is diſperſed upon the upper and lateral part of the ſecond toe, next the third toe.

91. 91 Another branch of the diviſion 89. 89, ſent to the upper and lateral part of the third toe, next the ſecond.

92 The exterior branch of the diviſion 87.

93. 93 A twig of the branch 92, which is ſpent upon the ſhort extenſor of the toes.

94. 94 Twigs of the branch 92, which, together with four of it's fibres which are not marked, are inſerted into the teguments of the tarſus and metatarſus.

95 The diviſion of the branch 92 into two ſmaller ones.

96 A branch of the diviſion 95, of which the twig 97. 97, together with it's fibres, is diſtributed to the upper and lateral part of the third toe; next to the fourth toe; while the twig 98. 98, is beſtowed upon the upper and lateral part of the fourth toe, next to the third.

99 The other branch of the diviſion 95. 95, of which the twig 100, is ſent to the upper and lateral part of the fourth toe, next the little toe; while the twig 101, is diſperſed upon the upper and lateral part of the little toe, next the fourth.

102 A twig of the branch R, which is inſerted into the plantaris muſcle.

103 Another twig of the branch R, ſent to the poplitæus muſcle, and the neighbouring membranes.

104 A third twig of the branch R, which enters the interior head of the gaſtrocnemius muſcle, and is diſperſed through it.

105 A conſiderable branch of the one R.

106 The diviſion of the branch 105 into three ſmaller ones.

107 A branch of 106, which enters the inner head of the gaſtrocnemius muſcle, and is diſtributed through it.

108 The middle branch of 106, which is ſpent upon the ſoleus muſcle.

109 The largeſt branch of 106, which is divided into two ſmaller ones; of which the one marked 110. 110, is ſent to the teguments upon the outſide of the calf of the leg, and runs down to the extremity of the tendo Achillis.

111 A ſmall branch of the one 109, which, together with 110. 110, is beſtowed upon the teguments on the outſide of the calf of the leg. Here it muſt be obſerved, that this ſmall branch is very frequently wanting, and then it's place is ſupplied by another reſembling it, which is ſent off from the branch Q of the diviſion P, and receives ſome twigs from the branch R. Beſides, this nerve is ſometimes ſent to the upper part of the little toe, and of the one next to it, and likewiſe ſends off one twig to the third; and then the branch X. X going down to the tarſus and metatarſus, is beſtowed entirely upon the teguments, and ſcarce reaches as far as the toes; but this ſeldom happens.

112 A twig of the ſmall branch 111, which is ſpent upon the teguments on the external ankle.

113. 113. 113 Twigs of the ſmall branch 111, which are beſtowed partly upon the teguments on the outſide of the ankle, and partly upon the fungous fleſhy maſs which fills up the ſole of the foot.

114. 114 More twigs of the ſmall branch 111, which are ſpent upon the teguments of the foot.

115 More twigs of the ſame 111, which are diſtributed partly to the teguments of the foot, and partly to the abductor muſcle of the little toe.

116 Another twig of the ſame 111, which terminates in the teguments of the metatarſus.

117. 117 The laſt ſlender fibres of the ſmall branch 111, which together with the twig 101, are ſent to the upper part of the little toe.

118 A large twig of the branch R, which ſends off the ſmaller ones 119 and 120. 120, to the membranes covering the head of the tibialis poſticus muſcle.

121. 121 Another large twig of the branch R, which is diſperſed through the ſame muſcle.

122 A ſmaller twig of the branch R, which enters the belly of the ſoleus muſcle, and is diſperſed through it.

123 Another ſmall twig of the branch R, which is inſerted into the coats of the veſſels near the calf of the leg.

124 A larger twig of the branch R, which is beſtowed upon the long extenſor of the toes.

125 A ſmall twig of the branch R, which terminates in the flexor muſcle of the great toe.

126 Another ſmall twig of the branch R, which is ſpent upon the tibialis poſticus muſcle.

Y. Y The continuation of the branch R, which runs downwards under the gaſtrocnemius and ſoleus muſcles.

Z The branch R cut through. The diſtribution of what remains of it, you may *ſee in the next figure.*

FIGURE XVI.

This figure repreſents the diſtribution of the nerve which ſupplies the ſole of the foot, and is taken from Vieuſſens, Tab. 30.

A The continuation of the branch R of the former figure, cut through here as well as in that figure.

1. 1. 1 Three twigs of the branch A, which are diſtributed partly to the teguments on the inſide of the ankle, and partly to the fleſhy fungous maſs which fills up the ſole of the foot.

2. 2 A twig of the ſame, which is likewiſe ſent to the teguments on the inſide of the ankle, excepting ſome fibres which are diſtributed to the fleſhy maſs juſt now mentioned.

B The diviſion of the branch a into two ſmaller ones.

C. C The interior branch of the diviſion B.

3. 3. 3 Small twigs of the branch C. C, which terminate in the neighbouring membranes.

4 A ſmall twig of the branch C. C, which enters the middle of the belly of the ſhort flexor of the toes, and is diſperſed through it.

D The diviſion of the branch C. C.

E A branch of the diviſion D.

5 A twig of the branch E, which after ſending off the fibres 6. 6. 6 to the ſhort flexor of the toes, unites itſelf again with the ſame branch E, from which it was ſent off.

7. 7. 7. 7. &c. Small twigs of the branch E, which terminate partly in the firſt interoſſeous muſcle of the great toe, and partly in the abductor muſcle of the ſame.

8. 8 Here the branch E receives the twig which it had before ſent off.

9. 9. 9. 9 The laſt ſmall twigs of the branch E, which are beſtowed upon the lower and lateral part of the great toe.

F The other branch of the diviſion D.

G The diviſion of the branch F.

H A branch of the diviſion G.

10. 10. 10 Small twigs of the branch H, which are ſpent upon the lumbricales muſcles, and the fleſhy maſs which is contiguous, and adhering to them.

I The diviſion of the branch H into two ſmaller ones.

11 A branch of the diviſion I, which is ſent to the lower and lateral part of the great toe, next the ſecond toe.

12 The other branch of the diviſion I, which is beſtowed upon the lower and lateral part of the ſecond toe, next the great toe.

K The other branch of the diviſion G.

L The diviſion of the branch K.

13. 13 Two ſmall nervous fibres, which are ſent to the neighbouring membranes.

M. M A branch of the diviſion L.

N. N The diviſion of the branch M. M into two ſmaller ones, of which the one 14, is ſent to the lower and lateral part of the ſecond toe, next the third; and the other 15, is ſent to the lower and lateral part of the third toe, next the ſecond

O. O The other branch of the diviſion L.

P. P The diviſion of the branch O. O into two ſmaller ones, of which the one 16, is ſpread upon the lower and lateral part of the third toe, next the fourth; and the other 17, upon the lower and lateral part of the fourth toe, next the third.

Q The exterior branch of the diviſion B.

18 A twig of the branch Q, which is inſerted partly into the neighbouring membranes, and partly into the fleſhy maſs which ariſes from the os calcis, and by ſome anatomiſts is taken for a muſcle; the tendinous part of which unites itſelf with the tendons of the ſhort flexor muſcle of the toes.

19 A twig of the branch Q, which enters the ſhort flexor muſcle of the toes, and terminates in it.

20. 20 Two twigs of the branch Q, inſerted into the fleſhy maſs which ariſes from the heel, and ſends off ſlips to the lumbricales muſcles.

21 A twig of the branch Q, which is diſtributed to the above fleſhy maſs, and likewiſe to that which fills up the ſole of the foot.

22 Another twig of the branch Q, which is diſperſed through the abovesaid fleſhy maſs, lying under the tarſus and the metatarſus.

R A branch of the one Q, which is ſpent upon the lumbricales, the adductors of the great toe, and the interoſſeous muſcles; excepting thoſe twigs 23. 23, which are ſent to the tranſverſalis pedis, or the adductor of the little toe, and to that part of the fleſhy maſs which is ſituated near the little toe.

S. S The diviſion of the branch Q.

T The interior branch of the diviſion S. S, which, after ſending off the three twigs 24. 24. 24, to the lumbricales and interoſſeous muſcles, is divided into two ſmaller branches; one of which 25, is diſtributed to the lower and lateral part of the fourth toe, next the little toe; and the other 26, to the ſame parts of the little toe, next the fourth.

V The exterior branch of the diviſion S. S.

27. 27 Two twigs of the branch V, which are ſpent upon the lumbricales and interoſſeous muſcles, and likewiſe upon the integuments.

28. 28 Two other twigs of the branch V, which are beſtowed upon the external part of the fleſhy maſs upon the ſole of the foot.

29. 29 Two more twigs of the branch V, which are inſerted into the abductor muſcle of the little toe.

30 The laſt ſmall twigs of the branch V, which, together with the branch 26, are ſent to the lower part of the little toe. Here it muſt be obſerved, that the moſt part of the twigs of the branch V, have a ſmall gangliform plexus.

FINIS.